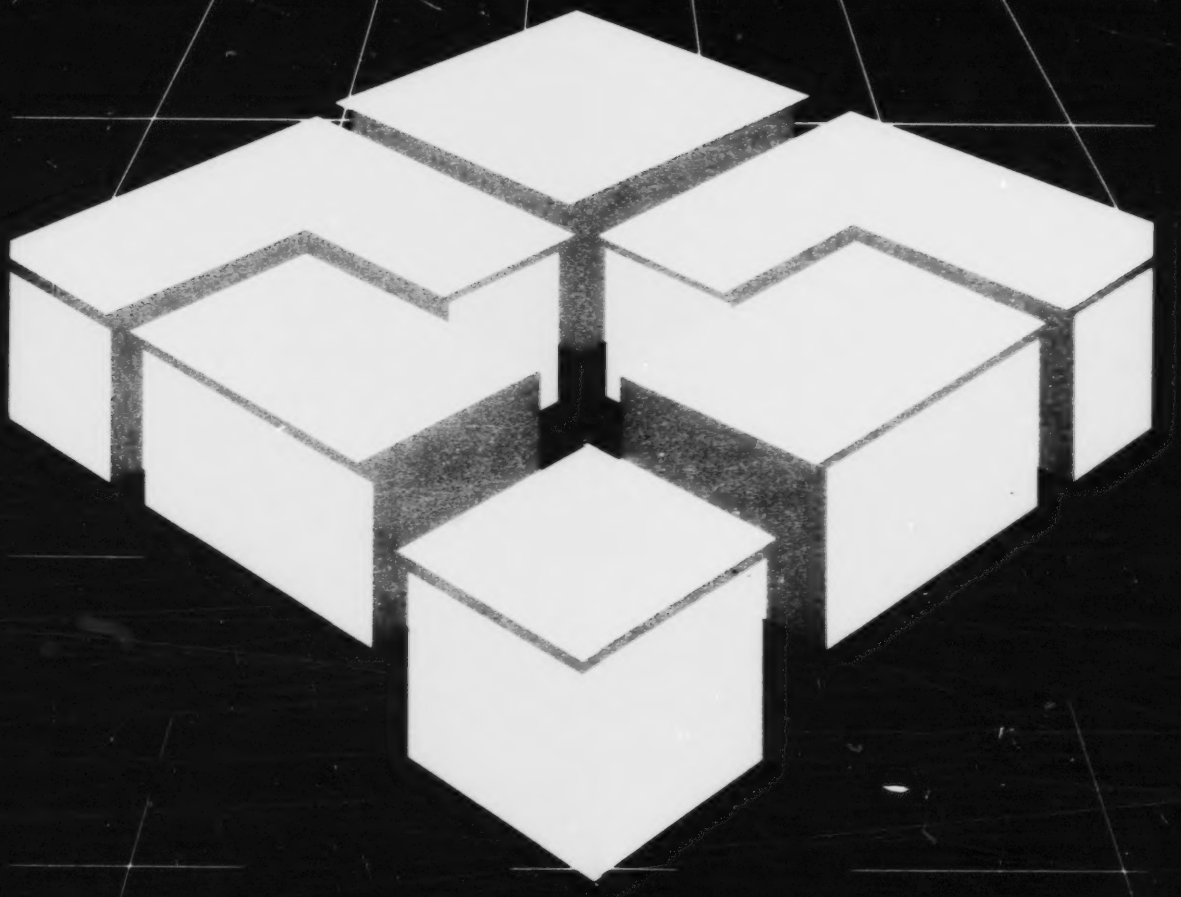
IDRC-208e

Basic Housing:

Policies for Urban Sites, Services, and Shelter in Developing Countries



Aprodicio A. Laquian

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BASIC HOUSING:

Policies for Urban Sites, Services, and Shelter in Developing Countries

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Résumé

Après avoir essayé pendant près de trente ans de faire disparaître les bidonvilles, la plupart des gouvernements des pays du Tiers-Monde ont maintenant adopté une attitude plus conciliante. Ce changement s'est accompagné d'une créativité remarquable dans l'action entreprise par les pouvoirs publics en vue d'améliorer les conditions de logement des populations urbaines défavorisées.

Cette monographie expose des résultats de recherche (données, aperçus, idées) sur la planification et l'exécution de programmes de logement. Elle s'adresse aux décisionnaires et aux administrateurs qui ont à mettre en œuvre des programmes de ce type. Elle se fonde principalement sur des études effectuées aux Philippines, au Salvador, au Sénégal et en Zambie, mais aussi sur des travaux réalisés dans d'autres pays. Les questions examinées comprennent le revenu familial, l'emploi, la santé, l'aménagement, l'éducation et la participation de la collectivité.

Resumen

Luego de casi tres decenios de estar tratando de erradicar los tugurios y las áreas de invasión, la mayoría de los gobiernos en los países en desarrollo han adoptado ahora una actitud más conciliadora y pertinente. Este cambio ha producido una notoria creatividad en los esfuerzos oficiales por proveer vivienda y servicios urbanos básicos a los pobres de las ciudades.

Esta monografía presenta investigaciones, análisis e ideas relacionadas con la planificación y ejecución de programas de vivienda básica. Y ofrece estos resultados desde la perspectiva del formulador de políticas o el administrador a quien se asigna la tarea de manejar tales programas. Aunque el trabajo se fundamenta, en su mayor parte, en cuatro estudios de países (El Salvador, Filipinas, Senegal y Zambia), también apela a la experiencia y el estudio realizado en otras naciones. Entre los tópicos discutidos que afectan la vivienda básica están: cambios en el ingreso familiar, empleo y desempleo, salud, consolidación de vivienda, educación y participación comunitaria.

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Foreword

Since people started living in towns some 8000 years ago, the city has been the symbol of development in commerce, industry, and the arts. At present, however, there are fears that cities may not be able to continue their developmental roles. Cities have become too large, it is said, they are choked by pollution and waste, scarred by slums and squatter shantytowns. Indeed, it is staggering to realize that the world's population has increased to 4.5 billion and that 42% of the people now live in cities. By the year 2000, the global population might reach 6.4 billion, more than half of that urban. Unlike in the past, urban growth will be fastest in less developed countries, where the proportion of people living in cities will almost triple between now and the turn of the century. Such massive urban growth will be occurring in cities already critically short of space, housing, and basic urban services.

The International Development Research Centre (IDRC) has devoted considerable resources to urban research, and the developmental implication of rapid urban growth has been a lively topic in the Centre's programs. Urban studies supported by IDRC have focused on policy implications of rural–urban migration, informal sector employment, low-cost housing, and providing basic services to the urban poor.

This study on basic housing, involving the evaluation of community-upgrading and sites-and-services programs in four countries, continues IDRC's interest in the problems of urbanization. It was launched in 1975 and has taken more than 5 years to complete. Like many IDRC-supported studies, the project involved the combined efforts of researchers from several countries. Research teams in El Salvador, the Philippines, Senegal, and Zambia collaborated in bringing this project to a successful conclusion. Information was also exchanged with other research teams doing similar studies in Indonesia, Jamaica, and Kenya.

An important aspect of this project was the joint support by IDRC and the World Bank. This collaboration, between two international agencies, was not confined to funding. Research professionals from IDRC and the World Bank helped in designing and implementing the research program and worked side by side with their colleagues in the four countries. Researchers at the World Bank were particularly helpful with data analysis and drawing out the policy implications of the research results. Although the main concern of country researchers focused on policies for their countries, IDRC and the World Bank sought to generalize from the specific research findings in an attempt to determine how basic housing projects can be replicated in other settings. Comparative studies were supported by IDRC and the World Bank, of which this present work is one.

A valuable element in this project was the opportunity for researchers and project managers to meet periodically to compare research results. Because the meetings were held in all of the participating countries, as

well as in Ottawa and Washington, DC, the researchers had an opportunity to observe directly conditions in other countries. They were also able to present research findings to policymakers and administrators and obtain the reactions of people to the ideas and insights emanating from the studies. At the same time, feedback from policymakers and practitioners encouraged researchers to examine a number of policy areas that needed further attention.

IDRC and the World Bank are publishing additional reports on this collaborative project in the near future. In particular, volumes on methodological aspects of evaluating projects are forthcoming. This particular work, on policy aspects of basic housing, is being released at this time because of the interest of government officials and administrators to learn from the research results. It is IDRC's hope that this work will respond adequately to that policy need.

David W. Steedman
Director
Social Sciences Division
International Development Research Centre

Prologue

Basic housing for the urban poor in developing countries might not be a house at all: it could be a piece of ground with a faucet and a pit latrine; it could be a basic house core with four walls and a roof; there could even be one room attached to a privy and a wet kitchen.

Basic housing, however, is rarely a house, almost never a finished house. A finished house is something the urban poor can no longer afford unless they build it themselves. When they do so, it may not be counted as part of the housing stock. It would most likely be classified as nonacceptable slum or squatter housing, illegal, and, therefore, nonexistent. The irony, of course, is that one-third to one-half of urban households in developing countries now live in such dwellings.

Of humanity's basic needs of food, clothing, and shelter, the latter has been one of the most difficult to provide. Housing is expensive. Even for the very rich, it is usually a family's largest investment. Of late, even the most optimistic planners admit that the cheapest shelter that can be formally designed would be beyond the capacity to pay of about one-third of the urban households in developing countries. Already, there are millions of families who will never know the comforts of a home of their own or have access to such basic necessities as clean water, a sanitary toilet, electric lighting, or garbage collection.

Since the end of World War II, cities in the Third World have been inundated with millions of squatters and slum dwellers. At first, these were mostly migrants from the villages, but lately the growth in their numbers has been due to natural birthrates exceeding death rates. The urban poor have shown a tremendous capacity to survive. With only rudimentary skills, they have built their own houses. They have used old lumber, flattened oil drums, rusty galvanized iron sheets, cardboard, plastics, and other discarded materials in their urban environment. Against the forces of government, they have availed themselves of basic services.

After almost three decades of trying to eradicate slum and squatter areas, most governments in developing countries have now adopted a more conciliatory and accommodating attitude. This change has brought about remarkable creativity in official efforts to provide housing and basic urban services to the urban poor. In a form of poetic justice, the basic principles and approaches of new housing policies borrow heavily from the literature on slums and squatters. The pioneering studies of Abrams, Turner, the Leeds, Mangin, and others chronicled the ways in which the urban poor provided themselves with sites, shelter, and services. The ideas of mutual aid, self-help, community action, core housing, and progressive development were derived from the actual practices of squatters and slum dwellers. These are, at present, the main ingredients of a basic housing policy.

Basic housing is the process by which even the poorest of families is able

to have access to affordable shelter and services. The main principle behind basic housing is progressive development. This is the idea that shelter and services can be initially provided in the simplest and cheapest way. The housing package can then be gradually improved upon in stages, using the combined resources of the people, community, government, and other institutions. In the process, the shelter and services that evolve are in response to the basic needs of the people and their inherent capabilities to achieve those needs, with governmental programs assisting and augmenting personal and community resources and unlocking popular energies rather than forcing people to conform to preconceived monolithic programs.

The two most common forms of basic housing at present are *community upgrading* and *sites and services*. In the past two decades, these have become the two most important low-cost housing approaches followed throughout the world. Housing programs in more than 100 countries now feature upgrading, sites and services, or variants of these approaches. The World Bank has, to date, some 90 projects in about 50 countries using this basic housing strategy. The US Agency for International Development has pursued upgrading and sites and services in its Housing Guarantee Loans Program. Other international and bilateral agencies, such as the European Development Fund, Canadian International Development Agency, and Asian Development Bank, have also supported basic housing programs.

This monograph is about actual experiences in the formulation and implementation of basic housing policies to improve the living conditions of the urban poor. It is aimed primarily at policymakers and administrators, although it may interest researchers and others as well. Although the work is based, for the most part, on the four country studies supported by the International Development Research Centre (IDRC) and the World Bank, it also draws upon experiences and studies from other countries. In particular, the work has profited from the author's involvement in basic housing projects in the Philippines, Kenya, Indonesia, and Jamaica. Specific data sources from these countries and elsewhere are cited in the text and the bibliography.

The initial idea of launching a monitoring and evaluation study of sites-and-services and community-upgrading programs was discussed at a meeting held in San Salvador, El Salvador, in July 1975. The meeting was jointly supported by IDRC and the World Bank and involved researchers and administrators from El Salvador, Jamaica, Senegal, and Zambia, as well as officers from the funding agencies. At that meeting, the objectives of the study, a tentative research design, and the participation of local and expatriate researchers were discussed.

The project, when finally approved by IDRC and the World Bank, had the following objectives:

(1) To determine the extent to which the goals of the projects are being achieved. This would involve, in addition to an assessment of the projects in light of their goals, an examination of the appropriateness of the sites-and-services and squatter-upgrading approaches in tackling the urban shelter problems.

(2) To assess the impact of the projects on the people living in the project areas, on the neighbouring communities affected by them, on the urban service structure, and on the city as a whole.

(3) To develop information that would help in the efficient execution of the projects, enable the formulation of intelligent informed policies within the cities and the countries, and facilitate the international comparison of the impact of similar urban shelter strategies in different economic, political, and administrative environments.

In due time, contracts were signed by IDRC and the World Bank with institutions in El Salvador, Senegal, and Zambia (negotiations with a research group in Jamaica fell through). Research teams were formed at the Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM), the Office des Habitations à Loyer Modéré (OHLM), and the Housing Project Unit of the Lusaka City Council. The following year, another team was organized in the Philippines at the National Housing Authority to monitor and evaluate the Tondo foreshore project in Manila.

The researchers involved in the study decided to use a number of methodologies, the most important being the quasi-experimental design. In this approach, families participating in the upgrading and sites-and-services projects were seen as the "experimental group," whereas a sample of families living in existing slum/squatter areas not directly affected by the action projects was the "control group." Panel studies were conducted of families in both groups, starting with a baseline survey in 1976 and followed by repeated annual surveys of the same families until 1980. It was hypothesized that the differences in socioeconomic changes through time between the experimental and control groups would be indicators of the effects and impact of the basic housing projects. Special interest was focused on such factors as changes in family income, employment and unemployment, health, housing consolidation, education, and community participation.

Aside from the social surveys, a number of innovative methods were also used in the study. To overcome difficulties in obtaining accurate information on family income, for example, researchers in the Philippines conducted an income and expenditure study that requested a sample of families to note on a daily basis, for a period of at least 1 year, all types of income in cash and in kind that they received, as well as all expenditures (for what and how much). In another study, a photographic record was made of a sample of houses, with a snapshot each month marking the extent, if any, to which the structure had been improved. In Zambia, intensive case studies were written on project events in which the community actively participated. In El Salvador, extensive studies on the value of housing in three types of low-income communities (*mesones* or inner-city slum housing, *colonias ilegales* or uncontrolled settlements, and *tugurios* or squatter communities) were conducted and compared with the community-upgrading and sites-and-services projects sponsored by FSDVM.

If the success of a research project can be measured by the number of reports produced (or the volume of such reports), this study of community upgrading and sites and services can be considered to be a great success. Fortunately, the research reports were qualitatively strong as well. Some of the reports from the study are listed in the bibliography. IDRC has published an annotated bibliography of the reports (IDRC-TS41e). Publication of a technical volume on methodologies for evaluating housing projects and a series of manuals on evaluation methods are also planned. It is hoped that country studies depicting the experiences in El Salvador, the Philippines,

Senegal, and Zambia will be published in these countries.

This current work is an attempt to present research facts, insights, and ideas related to the planning and implementation of basic housing programs. It views these research findings from the perspective of the policymaker or administrator given the task of managing such programs. With this in mind, this work has avoided the detailed analytical schema or complex methods that seem to be in vogue in the social sciences at present. It has also refrained from citing the highly technical dissertations on urban design and building materials so often cited by architects and planners.

Despite the approach taken, it is hoped that focusing on the policy issues and program aspects of basic housing has not resulted in compromising the factual basis and analytical reasoning behind this study. Simplicity in the style of presenting the research findings does not reduce the complexity of the issues covered. As most designers know, it is often more difficult to come up with a basic house than to build a baroque mansion. So it is with this work.

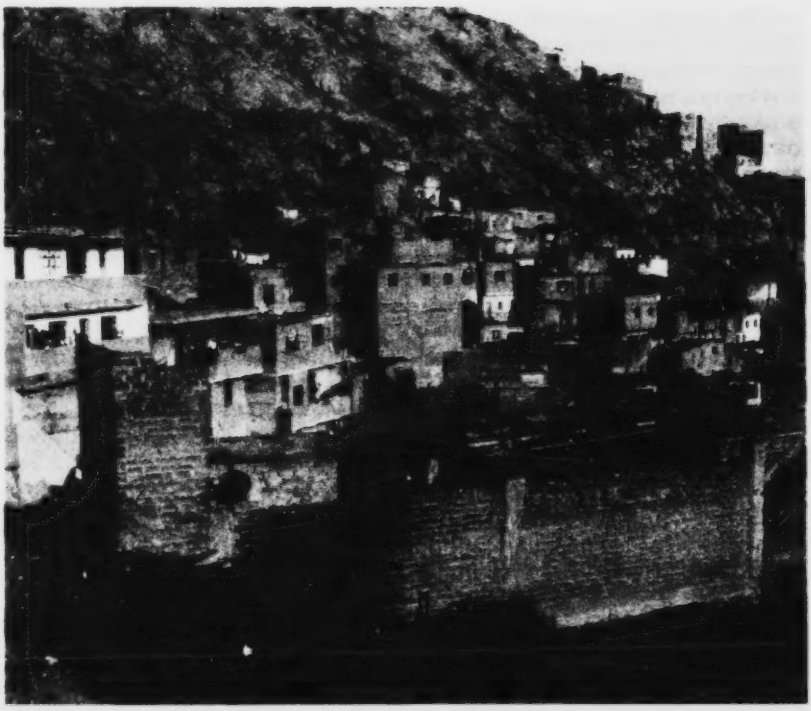
Although I was involved in this study from the outset, other concerns prevented me from participating actively during the final years of the project. It was with gratitude, therefore, that I accepted an invitation by Drs David W. Steedman and Yue-man Yeung of IDRC to prepare this monograph. After so many years, it was not easy to gather all of the materials produced in this project. I am grateful to Drs Douglas H. Keare and Michael Bamberger of the Urban and Regional Economics Division, Development Economics Department of the World Bank, for sharing their papers with me. I am particularly indebted to Doug and Mike for commenting on the first draft of this monograph in great detail — they may not agree with some of my conclusions but we share the common belief that upgrading and sites-and-services programs are generalized approaches that are considerably better than the other competing housing models currently available. My special thanks also go to Dr Emmanuel Jimenez of the Department of Economics, University of Western Ontario, for permission to quote from some of his papers.

The main responsibility for carrying out the research fell upon the research teams in the participating countries. I am grateful for the assistance of Mila A. Reforma and Annie Molina from the Philippines, Mathias Banda and Richard Singini from Zambia, Edgardo Gonzalez-Polio and Alberto Harth-Deneke from El Salvador, and Aly Bathily and Ousmane Blondin Diop from Senegal. My gratitude is also extended to the project managers who administered the basic housing programs, especially to General Gaudencio V. Tobias and Rolando Fadul of the National Housing Authority in Manila, M. Oumar Ba of OHLM in Dakar, A. Adamson and P. Muyangwa in Lusaka, and Mauricio Silva in San Salvador. Finally, I thank Gayle Steven for typing the final draft of the manuscript.

Without the assistance and support of the people mentioned above, it would have been extremely difficult to have finished this study. Although I acknowledge their support, however, I am primarily responsible for any errors of fact, interpretation, and judgment.

Aprodicio A. Laquian

INTRODUCTION



Typical pueblo jovenes site in Lima, Peru. (Many lessons on basic housing came from experiences in Latin America.)

Late in 1974, officials of the Philippine government began discussions with officers of the World Bank about a housing loan. The discussions covered a number of issues, the most important of which was: why borrow World Bank funds for housing?

An official in the nation's economic planning agency argued that, even at the concessional interest rate of 8% per year, the World Bank funds would be expensive because they would have to be paid back in US dollars. Devaluation of the Philippine peso within the next 25 years would raise repayment costs further.

Expensive funds, said the official, should not be invested in housing, which has a very low capital/output ratio and does not create that many multipliers in the economy. It would be better to invest World Bank funds in an integrated steel mill or a petrochemical plant.

"What you are proposing," said the official, "is to import expensive Australian steak only to grind it into hamburger. It does not make economic sense."

"The people want hamburger," responded a housing agency executive. "Besides, the government needs a low-cost housing program. The decision has been made — ours is not to question why."

A couple of years earlier, in Senegal, low-cost housing for the *bidonvilles* (shantytowns) was the topic of discussion. In previous years, the Government of Senegal had experimented with a basic housing approach called *parcelles assainies* (literally "sanitary plot"), which involved opening up new lands in the city's periphery; extending water, sanitation, drainage, and sewerage services to these plots; and assisting people in building houses. Officers of the World Bank agreed to lend funds for this project, which was called "sites and services." This was the first basic housing project supported by the World Bank.

At the other end of the African continent, in Lusaka, Zambia, the main issue with respect to housing was "minimum standards." World Bank officials favoured the construction of "core houses" on 200 m^2 lots, whereas Zambian officials wanted a finished house on 330 m^2. A member of the Lusaka City Council argued angrily that the low standards were against the principles of Zambian humanism:

> Under colonial rule, only white people lived in town, whereas Africans lived in their huts in the native quarters outside the city limits. Africans were separated from their families who remained in the villages. Jobless Africans were not allowed in the city. We are independent now. We should live in good houses with our families.

World Bank officials sympathized with the Zambian council member; however, they raised the crucial question of affordability. How much can the average family living in a Lusaka squatter area afford for housing and to what extent is the City Council willing to subsidize housing programs?

The policy discussions cited above reflected some of the main concerns

of officials in developing countries in the early 1970s. Rapid rates of urbanization had flooded their cities with migrants, most of whom had found their way into teeming slums and dilapidated shantytowns. Urban services were strained to the limit. Even civic discipline was breaking down as hordes of people invaded public and private land and set up their own communities overnight. Worst of all, traditional housing policies did not seem to work.

Public Housing Programs

The main housing programs prevalent before the 1970s were urban renewal, low-cost housing, and housing finance. They were based on the assumption that if enough housing units were built there would be no housing shortage. Solutions to the housing problem involved providing enough capital for housing, introducing modern technologies in housing construction, finding better and cheaper building materials, and designing more efficient dwellings. A prerequisite for the success of these solutions was control over land use, illegal squatting, population movements, and substandard structures. Housing was a rational, predictable, and regularized activity; it should have been responsive to efficient and effective management. It was not, however, and, one by one, housing policies and programs failed in developing countries.

Urban renewal was borrowed from North American and European programs designed to rejuvenate decaying city centres. Developers, with the support of government, assembled land in depressed areas, moved people out, demolished old structures, and then built new housing. Because this approach was subjected to modification in many developing countries, however, it rarely went beyond moving the people out and dumping them into "temporary" resettlement sites outside of the city limits. Instead of building new housing, authorities constructed expensive prestige projects such as cultural centres, convention halls, government offices, and transport terminals. In some countries, the cleared land was allocated to shopping plazas, high-rise condominiums, and parking lots.

Urban renewal became a euphemism for squatter eradication. Thus, when the City of Manila decided to rid the old walled city of Intramuros of squatters, families were simply rounded up by the army and police, placed on trucks with what remained of their shanties, and told to build their own homes at a new site 30 km away. The City Council then passed an ordinance requiring that any building constructed within Intramuros should feature Spanish architecture to preserve the historical character of the city. More than 30 years later, much of the cleared land within Intramuros is still vacant. Building in accordance with Spanish architecture was too expensive, even for private developers. Building a low-cost housing project using colonial Spanish architecture was beyond the creativity of even the best Filipino architects.

Instead of solving the housing problem, squatter eradication only made it worse. Destroying existing shanties meant a reduction in the housing stock. It also entailed a large loss to poor families who had invested considerable sums of money in their dwellings. It was estimated that when almost 39 000 people were evicted from the Eastleigh area of Nairobi in 1970, for example, the 6733 dwellings demolished represented a capital

loss of US$285 000 on the part of the people (Haldane 1971). Another eviction of squatters along the Nairobi River several years later resulted in a sharp reduction in informal sector jobs because the destroyed structures were also the workplaces of bicycle repairmen, automotive mechanics, and handicraft manufacturers.

The failure of squatter eradication programs is evident from the fact that squatters and slum dwellers are the fastest growing segments of urban populations. Suppressing them in some parts of the city only meant that they reappeared in other parts. Relocating them to city peripheries or back to the villages has not worked; they simply filter back to squat once more.

There are very few housing authorities using urban renewal or squatter eradication programs now. The common policy is to delay resettlement until an acceptable area is ready to receive the people to be moved. Most governments now attempt to preserve even substandard housing, counting even squatter shanties as part of the housing stock. These policies are apparent from such slogans as "maximum retention of structures," and "minimum dislocation of dwellings." It has taken several decades, but the futility of eradication programs is now known.

Subsidized housing has been the most common response of governments to the housing problem. Housing projects, for rent or for sale, have appeared in almost all cities in developing countries, often through foreign loans and assistance. Often, such projects were earmarked for specific groups, such as civil servants, war veterans, labour union members, or subscribers to government pension systems. Sometimes, they are allocated to former squatters or slum dwellers, particularly those removed from areas needed by the government for other purposes.

It is now realized that, even with minimum standards, subsidized housing programs are just too expensive to adequately house all the people needing housing. There are a few examples, such as Singapore and Hong Kong, where public housing programs have been successful (Yeh and Laquian 1979). In most countries, however, subsidized housing has been beset with problems.

One of the most serious problems with subsidized housing programs is the fact that they have benefited, for the most part, households that could have acquired housing on the open market. The people needing subsidized housing the most, on the other hand, were unable to attain access to public housing. Even when housing authorities planned such housing for them, higher income groups eventually took over through such means as "buying rights" from original allocatees, bribing housing administrators, or renting units to "dummy" families.

Repayment rates in public housing projects are notoriously low, with delinquency rates often reaching 100% in a number of projects. Many reasons are cited for this: refusal of tenants to pay because units are poorly maintained or serviced; lack of willingness on the part of administrators to collect payments; or simply the attitude that because the projects belong to the government there is no need to pay for them. Some housing units have even been vandalized; others have remained unoccupied for years because of structural defects, poor design, or the fact that people do not want to live in them.

The main issue with subsidized public housing is equity. It does not benefit the "target group" most in need of housing, i.e., the poor (Van Huyck 1971).

> The poorest people of the country usually make substantial contributions to the overall tax revenues through various forms of indirect taxation such as the sales tax. If part of this money is used to provide housing subsidies for a small portion of the urban households, it means that the poorest people are being taxed to allow others, many of whom will be better off in any case, to live better.

At present, despite criticisms such as those mentioned above, most developing countries have subsidized public housing programs. Often, they are justified in terms of the need to provide adequate housing to households that can assure their cost recovery because of their regular incomes. Because people living in slum/squatter areas are not uniformly poor, public housing is sometimes justified as a "decongestion" method, giving those families that can afford it a chance to move out of the poor areas. In a form of "trickle down," the shanties vacated by upwardly mobile families become available to others.

Politically, some governments use public housing mainly to reward special groups. In most cases, such groups are not the most needy. As long as acceptable housing is scarce, however, this inequality and lack of social justice will be a feature of subsidized housing in many developing countries.

Fiscal policies to provide housing in developing countries have taken the form of low-interest loans, organization of mortgage institutions, setting up savings and loans associations and trust companies, and even the formation of housing cooperatives. All of these approaches, however, have assumed that the households involved have some form of regular income to invest in housing. Fixed assets that can be used as collateral to back up loans, such as land, are also required. Most important, managerial expertise in running the financial institutions is assumed to be available (or, at least, that there are people who could be adequately trained in a short period of time).

Experiences with housing institutions have been mixed: failure rates have been high; complaints about the complex administrative procedures before one can get a housing loan are many; common banking practices, such as requiring collateral, are often not met by low-income households; and affordability levels for formal housing programs are set too high for most squatters and slum dwellers.

Experiences with housing finance institutions have been similar to those of subsidized housing projects — they have generally benefited the wrong target group. Those with the means received the loans; those who needed it most did not. As many housing bank officials have said, "we are a bank, not a charitable institution." Use of modern banking principles does not assist the families in the most need of basic housing.

Lessons from Squatters/Slum Dwellers

Even as housing authorities were encountering difficulties in making housing programs work, social science researchers were publishing studies shedding some light on why their policies were failing. In Peru, Turner (1967) and Mangin (1970) observed the organizational capabilities of squatters and proposed that these could be harnessed for development of

their communities rather than being turned against the authorities. In India, Van Huyck (1971) and Rosser (1971) noticed the adequacy of even the worst slum dwellings and cautioned against policies that would destroy existing housing stock. In Venezuela, Peattie (1968) witnessed mutual assistance patterns in low-income neighbourhoods that were found to be useful in housing and services provision. Studies in Brazil disproved the notion that squatters are dangerous radicals and noticed that the organized behaviour of low-income people was used mainly to attain basic housing and services.

Based on studies of slums/squatter communities, a number of generalizations with relevance to basic housing were put forward. Among the most important of these were:

(1) Squatters and slum dwellers have the resources, skills, and personal motivations to provide adequate shelter for themselves.

(2) When given security of tenure and resources, squatters and slum dwellers can build their own houses and improve them as their life situation improves.

(3) Squatters and slum dwellers develop their own market mechanisms and can provide themselves with building materials appropriate to their needs.

(4) Squatters and slum dwellers are well organized and use mutual aid and self-help in building their own houses and community facilities.

(5) There are valid reasons for the locations chosen by squatters and slum dwellers and these usually dictate their choice of housing sites.

The early literature on slums and squatter areas was condemnatory and almost alarmist. Fears were expressed about the breakdown of morals, disorganization of family and community life, and the revolutionary threat of an expanding proletariat in the slums. Invasion and capture of public land were seen as violations of law and order. Authorities feared that repeated legal transgressions would become habitual and that the rules of society would no longer be enforced.

After some time, more realistic descriptions of life in slum/squatter areas were written. Urban sociologists were particularly active in these studies, which revealed that the urban poor were primarily interested in leading a normal life under abnormal historical conditions. Before long, the literature started developing a more idealistic and romantic tone. Squatters and slum dwellers were the true transitional people, breaking from tradition to attain a modern urban lifestyle. Left to themselves, they could solve their own housing problems. Squatters and slum dwellers were not the problem but the solution to urban ills.

This glorification of the slums coincided with a number of housing experiments that attempted to adjust to the real living conditions of the urban poor. In the 1960s, squatter eradication and resettlement programs gave way to programs that respected the existence of squatter communities, albeit grudgingly. Existing slum/squatter areas were even improved in Chile, India, and Iraq by extending basic services to such places. A review of "sites-and-services" projects (Grindley and Merrill 1971) revealed that such projects were being used in some 32 countries. A number of the projects were more than 10 years old and were fairly successful in improving the living conditions of the urban poor. The review defined sites and

services as "a method of preparing land to facilitate the construction of individual houses and a method of upgrading residential areas that are already settled." Sites and services consisted of one or more of the following elements:

(1) Site: the residential building plot described by its size, location, and project density.

(2) Public utilities: basic amenities, such as water and sanitation, and desirable services, such as electric lighting, sidewalks, and paved roads.

(3) Neighbourhood facilities: such as schools, markets, police and fire protection, parks, community centres, and religious or cultural centres.

(4) Contractual arrangements: legal relationships between the government and the residents, such as land tenure, repayment of developmental costs, responsibility for basic services, and land-use regulations.

Until the late 1970s, little distinction was made between sites and services and community upgrading. Later, it was recognized that, although these approaches went together, each one required different interventions; thus, two basic housing approaches evolved.

Basic Housing Options

Learning from the various housing activities in developing countries and heeding lessons from the literature on low-income communities, planners evolved two basic housing approaches: community upgrading and sites and services. Both approaches were intended to help the urban poor. They also focused on land and services rather than shelter. Both depended upon the resources and capabilities of the people themselves and saw the government's role mainly as supportive (much later, this became known as "aided self-help"). Despite the similarities, however, it is useful to describe the two approaches more distinctly.

Community Upgrading

In community upgrading, basic services are introduced in situ or in the slum and squatter communities themselves. Typically, potable water, toilets, surface drainage, garbage collection and disposal, electricity, schools, streets and footpaths, and community centres are provided. Where some of these services already exist, they are improved.

Because houses and other structures are often built without a plan in slum/squatter areas, community upgrading attempts to "rationalize" the location and alignment of these structures, usually following a grid pattern of streets and footpaths. In the Philippines, this process is called "reblocking" and involves dislocations to as many as 50% of structures. In El Salvador, experiments have been conducted in which old rental housing in the *mesones* was improved, basic services were provided, and the units were sold to the people in a form of condominium ownership.

A primary ingredient of community upgrading is assuring security of tenure to project participants. There have been attempts to use long-term leases but in almost all countries people have expressed a preference for outright sale. Not just legal status but formal definitions of the boundaries of residential plots have been found to be important to tenure. This is

why surveying and documenting of properties were such key ingredients in the Philippine reblocking program.

Security of tenure, in turn, has been found to be most important in house improvement (also known as "housing consolidation"). When people are not sure whether they own a property or not, they are not likely to improve it. Although housing consolidation is influenced by other factors (availability of resources, construction skills, possibility of mutual aid), it is security of tenure that is often the main element in housing consolidation.

Frequently in community upgrading, the introduction of services and the rationalization of land use requires reducing the density of the community. In such instances, households are relocated to other areas where sites and services are provided. In Lusaka, planners exerted great efforts to ensure that the relocated households were not moved too far from the original communities so as not to disrupt employment, access to services, and community life. Sites and services in "overspill" areas were found and people were moved there in groups. In the Philippines, families that could not be accommodated in the Tondo project were resettled in a site called Dagat-Dagatan, about 3 km away.

Sites and Services

The sites-and-services approach involves the opening up of new land and its subdivision into serviced residential plots. Service standards vary. Some projects might have water piped directly into each house, whereas others provide only a common water faucet shared by about five families. Sanitation arrangements range from pit latrines to flush toilets for each house. The sites provided varied also, with the average plot size in Tondo being only 45 m^2, whereas in Lusaka it was about 300 m^2.

Earlier sites-and-services projects, like the Pikine scheme in Dakar, Senegal, were often located in peripheral areas of the city. Land was cheaper in such areas. Planners also hoped that the introduction of services in these areas would influence the direction and pace of the city's growth. These early projects met with severe difficulties because people's lives were disrupted by being moved so far away from their places of work. In many countries, projects were abandoned after the initial resettlement; in others, the projects were not settled at all.

The shelter component in sites-and-services projects may vary. A few projects do not have any shelter at all — families have to build on the serviced site, sometimes using the remnants of their destroyed shanties as building materials. Most projects, however, have a variety of "core units," which might include a wall and a toilet, a kitchen, or even a room. The Dandora project in Nairobi, Kenya, for example, offered the following types of units: type A: sanitary core only (a toilet and washroom), built on a plot ranging in size from 100 - 140 m^2; type B: sanitary core and one room used as a kitchen, built on plots ranging in size from 100 - 140 m^2; and type C: sanitary core and two rooms, built on plots 160 m^2 in size.

As in community upgrading, families are expected to use mutual aid and self-help in sites-and-services projects. In El Salvador, participation in mutual aid is a prerequisite to joining a project. In Zambia, people were expected to help in community projects and to build community halls and

other public buildings, although this requirement of mutual aid was later downplayed. In the Philippines, neighbours assist each other in moving the houses affected by reblocking. The government may offer technical assistance in the performance of mutual aid but the community has primary responsibility for the mutual-aid projects.

Examples of Projects

To gain a better idea of the nature of community-upgrading and sites-and-services projects, it might be useful to describe in greater detail the four projects evaluated in the International Development Research Centre (IDRC) – World Bank supported study. The Senegal project is typical of early sites-and-services efforts. Sites-and-services projects were evaluated in El Salvador. Community upgrading and sites and services were combined in the projects in the Philippines and Zambia. Because the four country projects were launched at different times, they show a process of learning by doing. This is seen not only in the main approaches used but also in such details as types of services provided, levels of services, and management structures used.

Senegal

The Senegal project, approved in 1972, was the first sites-and-services project supported by the World Bank. It involved loans of about US$8.3 million to provide some 14 000 serviced plots in Dakar and 1600 plots in Thies.

The bulk of the funds was allocated to land preparation because the site chosen, in an area called Pikine on the outskirts of Dakar, consisted mainly of undulating sand dunes. The land was graded, roads were built, and drainage facilities were constructed. Two types of water and sanitation systems were provided: public faucets and pit privies for 85% of the plots and private water connections and septic tanks for the remainder. Electricity was also included in the project, mainly for street lighting.

The neighbourhood facilities included 12 primary schools, 4 secondary schools, and 4 health centres in Dakar, whereas 2 primary schools and 1 health centre were allocated for Thies. Plots were also provided for the construction of other community and recreational centres, religious buildings, small-scale industries, and commercial establishments.

As designed, capital charges on a typical plot were about US$290 in Dakar and US$120 in Thies over 15 years. This would buy a 150 m^2 lot with a pit latrine, access to a public faucet, and very little else. Building materials could be purchased with a loan, originally set at CFAF100 000 and payable at 7% interest per year.[1] Households with incomes ranging from US$57–145 per month in Dakar (US$40–145 in Thies) were eligible for the project.

Although infrastructure construction began in 1973, the Senegal project suffered from delays. Even when the roads, water, sewerage, and other services were finished, people did not move to the site immediately.

[1]Currency: CFA Franc BCEAO; responsible authority Banque Centrale des États de l'Afrique de l'Ouest.

In February 1978, only four families had moved into the project. Most families allocated a plot said the building materials loans were only enough to build a foundation for a dwelling. Loan amounts were raised to CFAF275 000 in 1978 and to CFAF415 000 in 1980. This accelerated movement to the area so that by July 1980 more than 3000 families were living in the project. Before the end of 1980, some 5000 families had moved to the site and another 12 557 had been selected. Applications for the project had also increased so that about 35 000 families had expressed interest in a plot. At the time of writing, so many people had moved into the area that the housing agency was having problems with services.

El Salvador

The agreement for the US$8.5 million loan for the El Salvador project was signed in October 1974. The project was designed to provide urban services to about 7000 lots in the capital city of San Salvador and in other urban areas (Santa Ana, San Miguel, Sonsonate, and Usulutan). The project offered a number of options: (1) a residential plot ranging in size from 60–90 m^2, with access to water, sewerage, electricity, and other services; (2) a completed sanitary core composed of a toilet, sink, and an enclosed bathroom area, connected to all basic services; (3) a completed sanitary core with a roofed core house with a living area of about 18 m^2, connected to all basic services; and (4) a completed sanitary core with a roofed house with a living area of about 36 m^2, connected to all basic services.

The El Salvador project was the first (and only so far) that was administered by a private nonprofit organization, the Salvadorean Foundation for Development and Minimal Housing (FSDVM). The average plot cost US$1500 and was designed for families with monthly incomes ranging from C140–240 per month. A 10% down payment for the plot was required. It was also mandatory for families to participate in mutual-aid work during weekends for periods ranging from 3–6 months. It was expected that each family would use self-help in the construction and improvement of its dwelling.

In June 1980, an evaluation of the El Salvador project showed that about 4348 dwelling units had been completed and another 2246 were in progress. In addition, most infrastructures and community services were installed. Some services, which were the responsibility of other government agencies, were being delayed but, in general, participants residing in the projects were happy. This satisfaction can be gauged by the fact that only 2.3% of the total loan portfolio were in arrears in July 1980.

Zambia

The Lusaka project was designed to upgrade conditions in four low-income communities (George, Chawama, Chaisa, and Chipata), where about 60% of the city's squatters lived. The project cost US$41.2 million, US$20 million of which came from a World Bank loan. Some 17 000 dwellings were to be improved and 7600 new serviced sites provided in adjacent "overspill" areas. Services provided in both upgrading and overspill areas included water (one public faucet for every 25 families), roads, and electric street lighting.

About 4400 sites-and-services plots were also included in the Zambia project. Of these, 1200 plots were to have only "basic" services (pit latrines and access to public faucets). Another 3200 plots were to have "normal" services, which had piped water to every dwelling and a toilet connection to a waterborne sewerage system. Like the upgrading projects, the sites-and-services schemes had roads, surface water drainage, and electric street lighting.

To assist families in building or improving their homes, building materials loans of up to K100 were made available initially. Repayment was to be made over a period of 15 years, at 7.5% interest per year. In the overspill areas, a family could borrow up to K250, whereas a family in a normal sites-and-services project could borrow up to K525. Community facilities were included in the project. These entailed building and equipping 18 primary schools, 17 multipurpose centres, 3 health centres, 17 markets, and 11 demonstration houses. The demonstration houses were built to show people various options for building and consolidating their houses. These were later sold to families at cost.

An evaluation in May 1981 (Sanyal et al. 1981) indicated that the Lusaka project had extended services to almost 20 000 dwellings and provided new services to more than 7000 families in adjacent overspill areas. About 3600 serviced plots were also offered in the sites-and-services schemes. The original standards for the project were quite high; demand for the units was also very high. To make more units available, therefore, some design requirements had to be introduced. Thus, instead of 325 m^2 per plot, the overspill area projects averaged only 210 m^2. Satisfaction with the plot size was very high, however, and families even found enough space for gardening within the project.

The most important problem faced in Lusaka was the extremely high default rate. In March 1980, service charges for 99% of the families in the upgrading project in Chawama were in arrears of more than 1 month. In the community of George, 62% were in arrears. With respect to loan repayments, the situation was even worse, with 63% of families in Chawama and 38% in George in arrears of more than 1 year. Even in sites-and-services projects, loan repayment was not good, as about 40% of the families were in arrears.

The evaluation found that the high default rates did not seem to be due to the inability of the families to pay. Families with high incomes were equally represented among those that defaulted. It was concluded that the high default rates were due mainly to the absence of an efficient collection procedure as well as a lack of "political will" on the part of project management to collect the charges. This situation was, in turn, due to complaints from project participants that the services promised in the projects were not adequately provided and to political pressures from the people that expectations should first be met before collections are made.

Despite its problems, the Lusaka project has been deemed a success by Zambian authorities. By producing 11 500 new housing units and improving services to 20 000 families, it has been estimated tht the project improved the living conditions of more than 31 000 families. Furthermore, the value added to the housing stock has been estimated at about K15 million.

Philippines

The Philippine project focused on the community of Tondo, Manila, where some 27 500 families lived on 137 ha of reclaimed land. The project, which began in 1976, was estimated to have cost US$65 million, about US$32 million of which came from a World Bank loan.

The main approach in the project was the upgrading of conditions in the old Tondo foreshore lands (Fig. 1). This involved the construction of roads and pathways, relocation of houses to their proper places in "reblocked" areas, introduction of piped water and waterborne sewerage systems, and building of community centres and schools. About 12 000 houses were to be upgraded in the old community. Another 4000 families were to be moved to a sites-and-services project in Dagat-Dagatan, located 3 km away. The same level of services was to be provided in Dagat-Dagatan and, in addition, families were given a number of options on "core houses" that could be built. These ranged from a sanitary core and a shared fire wall to a sanitary core with shared fire wall, posts, roof, and sidings (a basic house that a family could move into immediately).

Housing materials loans of P500 (raised to P3500 in 1978) were made available to families but could be obtained only in materials, not in cash. Loans were processed by the Development Bank of the Philippines, although the executing agency for the project was the National Housing Authority (NHA). Investment loans were also extended to entrepreneurs. In addition, an industrial estate was set up where factory sites and buildings were offered to investors to help create jobs within the community. Serviced sites were also offered for sale in a "commercial strip" and the economic rates charged there were designed to cross-subsidize the cheaper lots in the project proper.

In upgrading the old community, the NHA followed the principles of (1) maximum retention of structures; (2) minimum displacement of families; and (3) maximum community participation. Efforts were also exerted to incur minimum costs in service provision so that the project would be within the capacity to pay of participants.

An evaluation made in June 1981 revealed that about 97.5% of the households surveyed in Tondo had improved their dwellings, with 12.5% building entirely new structures. Land ownership in the project has become more equitable because the reduction in average lot sizes from 65.2 to 53.9 m^2 allowed more families to gain access to land in the area. With houses being enlarged and improved, more rental space was created (an average increment of 10.5 m^2 per structure). The number of families offering space for rent has increased by 10%.

One of the most notable accomplishments in Tondo, however, was the active role played by the community in all aspects of decision-making pertaining to the project. Organized community groups played an active role in setting standards for the project, selecting participants, formulating procedures, and implementing project activities. This participatory style has been extended to two nationwide community-upgrading and sites-and-services programs called the Zonal Improvement Project (ZIP) and Slum Improvement and Renewal (SIR) Project, which are both supported by the World Bank. ZIP projects are concentrated on about 200 slum/squatter areas in Metropolitan Manila, whereas SIR projects are located in

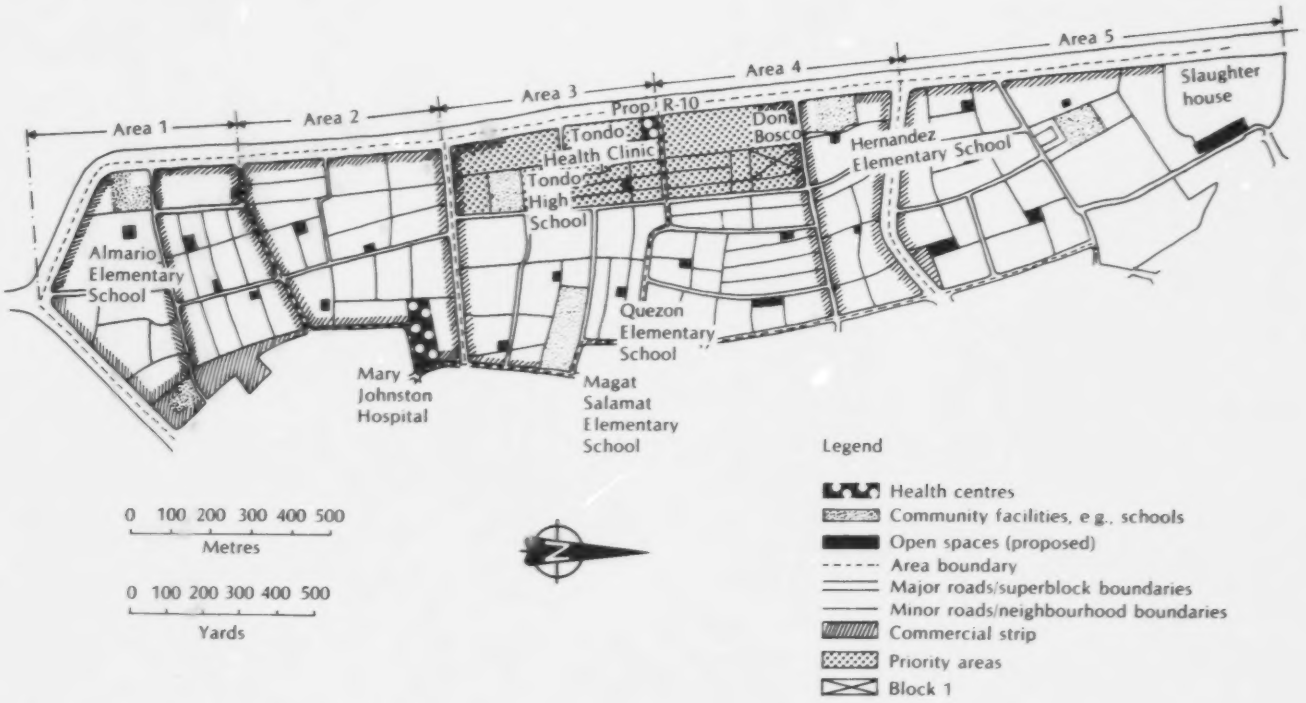


Fig. 1. Tentative Tondo foreshore development plans.

intermediate cities and towns such as Cebu, Cagayan de Oro, and Davao in the southern Philippines.

The Tondo project relied heavily upon self-help but the construction activities in the area created jobs for about 500 residents. Small entrepreneurs were also encouraged as shown by the fact that 230 loans have been granted. Some problems are being encountered in the industrial estates because the lack of services (mainly water) is discouraging entrepreneurs from setting up operations within the area. Collection of service charges for water and sanitation is also being delayed because the NHA fears that until service delivery is up to standard, people will be reluctant to pay such charges.

Key Policy Issues

Basic housing programs, as exemplified by community upgrading and sites and services, have become the most important policy interventions in assisting the urban poor in developing countries. Based as these programs are on attaining a greater understanding of life in slum/squatter areas, they have generated great expectations about their effectiveness. The careful evaluations covered in this monograph attempt to assess whether or not the promise of upgrading and sites and services has been kept. In this assessment, the following policy issues are of the utmost importance.

Affordability

One of the most important questions posed in upgrading and sites and services is whether or not the majority of the urban poor can afford them. If affordability levels are set too high, basic housing projects would cater to the relatively more prosperous families in slum/squatter areas. The result would be a "creaming off" process, in which those in the most need of assistance would be left to fend for themselves while the lot of the better-off families would be improved further.

Setting affordability levels too low, however, would mean greater subsidies, which may limit the capacity of governments to replicate projects. Cost recovery is a policy adhered to by national and international funding agencies, but projects designed for the poorest families have tended to have low cost-recovery records. To what extent has affordability been influenced by this "banker's view" and what have been the effects of affordability levels on the effectiveness of past projects?

Affordability has been the main element in deciding what "target groups" are benefited by basic housing. It is also closely related to the issue of "accessibility," as higher affordability levels would make projects inaccessible to poorer families. It is important to find out, therefore, if existing housing programs have reached the right target groups. It is also important to determine the programs' impacts on other groups, especially those excluded because of the affordability levels set by project designers.

Mutual Aid and Self-Help

Mutual aid and self-help are closely related to affordability because it is believed that they cut project costs. What has been the experience with

these approaches in reducing costs? In relation to costs, it has been observed that managing mutual-aid and self-help programs entails heavy administrative costs. What are the trade-offs between these costs and the accomplishments of mutual aid and self-help?

In the El Salvador project, participation in mutual aid and self-help is a prerequisite to participation in the project. How successful has this been and to what extent has it affected the accessibility of the project to disadvantaged groups such as households headed by females and those employed in the informal sector?

Housing Consolidation

All basic housing programs are based on the assumption that people will improve and consolidate their dwellings when they are assured of tenure and provided with the means and time to do so. Housing consolidation, however, may also be influenced by other factors. For example, have the expectations that squatters and slum dwellers will have the skills needed to build their own houses been met? What have been the effects of building materials loans, skills training programs, and technical assistance on the nature and pace of housing consolidation?

Housing consolidation is heavily influenced by project design. If designers want aesthetically pleasing houses, they may provide a higher level of core house development and impose time limits on consolidation. These, of course, will raise costs and would then affect project accessibility. One of the major criticisms of upgrading and sites and services has been that they create "planned slums." To what extent has fear of this criticism influenced the nature of basic housing projects?

Building Codes and Standards

Basic housing programs are usually considered substandard when traditional building code provisions are used. To what extent has adherence to such standards affected the affordability and accessibility of projects? What have been the effects of building code standards on such elements of basic housing as house and subdivision design, construction processes, choice of building materials, and technology used with respect to the success or failure of programs? Many designers have called for "appropriate" codes and standards to cover upgrading and sites and services. What is the nature of these standards and how effective have they been in low-income projects?

Income Generation and Employment

It has been argued that shelter and services are not the main problems in slum/squatter communities, that if people could obtain employment and earn some money they would solve their housing problems. Many basic housing programs now include income generation and employment components. How successful have these approaches been? To what extent have such project elements as low interest loans, skills training, formation of cooperatives, and providing business or commercial sites been successful in enhancing employment and income generation?

Cost Recovery

Policies on cost recovery directly affect project affordability and accessibility. They also influence project selection because levels and rates of repayment determine who can participate in a project. Housing authorities have formulated collection procedures. The effectiveness of such procedures is highly dependent upon their rationality as well as on the role played by the community itself. To what extent are positive or negative community reactions related to cost recovery? What has been the experience with using incentives and sanctions on actual cost recovery?

Community Development

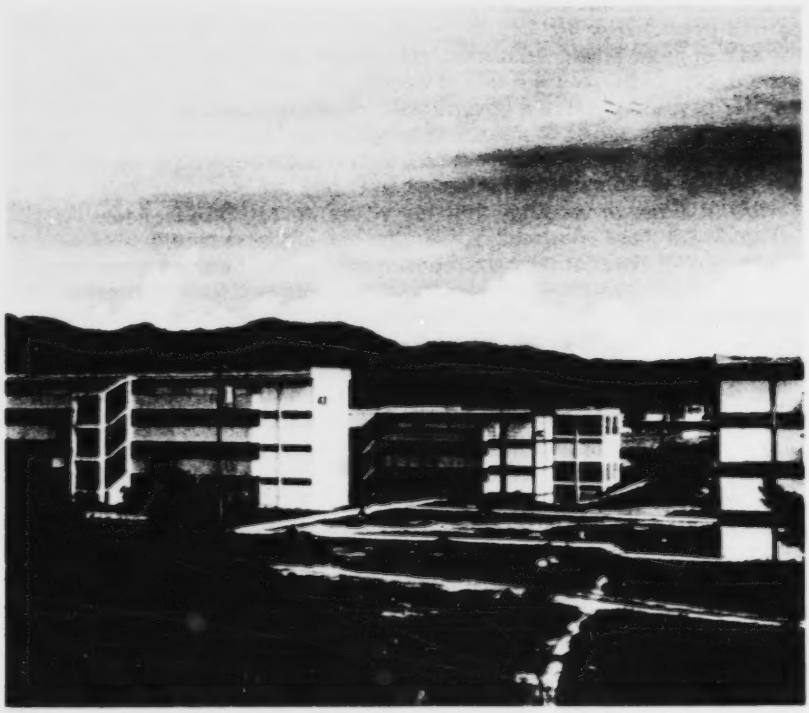
The participation of the community in all aspects of basic housing has been seen as both an end and a means for achieving basic housing goals. What has been the experience with community participation and to what extent has it accomplished such goals as lowering project costs, formulating more appropriate designs and standards, and assuring project maintenance? Like mutual aid and self-help, community development has proven to be quite expensive to administer. Have these additional costs been made up for by greater project accomplishments?

Project Impact

Basic housing programs have been designed not only to improve the living conditions of the project participants but also, because they exist within an urban and national context, to have a direct or indirect impact on conditions in adjacent areas. Impacts are also expected on national housing policies, housing institutions, and housing finance.

Most important of all, it is important to indicate what kind of impact basic housing approaches have had on the "state of the art" or the shared body of wisdom on what can and should be done to improve the plight of the urban poor. Have community upgrading and sites and services lived up to the expectations of their proponents or have they been transformed in the process of implementation and achieved only limited effects?

AFFORDABILITY 1



Public housing programs often involve the construction of middle-class apartments, San Salvador.

In most countries, housing might be provided by the private sector, government, efforts of the people themselves, or a combination of these factors. Policy decisions on what type of housing should be provided and by which sector may be heavily influenced by questions regarding affordability. This can be estimated by: (1) how much a family earns, (2) the proportion of income the family is able or willing to devote to housing, and (3) the monthly cost of housing to the family. Although these factors appear simple, they are actually quite complex. As housing project designers have found out, estimating a project's affordability so that it benefits a particular "target group" is not an easy task.

Estimating Income

Although income is the most common criterion used to judge one's eligibility to participate in a basic housing scheme, it is also the most difficult to estimate. Income can come from various sources, such as money earned in exchange for labour, production for one's own consumption, the sale of items produced but not consumed, the increased value of assets owned, proceeds from the sale of assets, gifts from relatives or friends, or transfer payments from the government. When income is used as a requirement for participating in a housing project, the level of income is not the only important aspect. It is also useful to find out whether the income flows are regular or sporadic, whether or not they are sustained over a long period of time, or whether they are rising or declining.

Faced with these complexities, planners sometimes decide to base income figures on declarations by the households themselves. As most income surveys have shown, however, such estimates are peculiarly subject to bias. Respondents have a way of anticipating what the objectives of the survey are and may adjust their responses accordingly. Thus, they may undervalue their incomes to influence a housing agency to set lower repayment rates or to decrease income ceilings in a project. On the other hand, they may sense that a certain level of income is required for entry into a project and may inflate their income statements to meet this requirement.

There is the possibility, of course, that some families may not really know what levels of income they will receive in the future. This is particularly true of families earning income in the so-called informal sector, where boom or bust situations are quite common. Thus, a vegetable vendor might have a good day and earn quite a bit or the vendor might be arrested, have all wares confiscated, and return home without even the day's initial capital. A pedicab driver might be charged with obstruction and use the day's earnings to bribe himself out of the situation. These daily uncertainties add up to uncertain months, and trying to estimate average income becomes a chancy game at best.

Income uncertainties place the responsibility for determining affordability on the shoulders of project designers. A conservative planner wanting to

minimize risk can use as a definition of income only the proceeds, from formal sector employment (salaries and wages), of the head of the family. Such income is regular and predictable and housing payments can be collected at the source if need be. Another planner, who desires to serve more families, might add to the income of the head of the family earnings of the spouse and other family members, whether these come from formal sector employment or not. Still another planner, who wants to increase the accessibility of the project to lower income families, might consider as income regular or irregular gifts, transfer payments, and all other proceeds in cash or in kind.

Obviously, affordability limits will change depending upon the definition of income used. In a survey in El Salvador, for example, estimates of family income (using the broadest income definition as a base) were 8% lower when only regularly earned income was considered. When only the earned income of the family head was counted, the estimates were only 56% of total income (Bamberger et al. 1980). It has also been estimated that, on the average, total family income can be twice as great as the wage income of the family head alone (Keare and Parris 1981).

Conservative housing designers might question the inclusion of gifts and transfer payments in household income. Studies in El Salvador, however, revealed that one-third of all families surveyed received transfer income during the month studied. On the average, families received about US$11.20 in transfer payments out of a total average monthly income of US$120. Even more interesting is the fact that the gifts and transfer income were recurrent and stable and regularly represented some 10% of the recipient household's income (Kaufmann and Lindauer 1980).

A study of income and expenditures in Tondo also revealed that income from "extra regular sources" (composed mainly of gifts and transfer payments) accounted for 10.7% of monthly income (NHA 1978d). An interesting characteristic of this type of income, however, was its tendency to grow very rapidly when needed. A special study was conducted of incomes and expenditures during the time when families had to move their houses from their original sites to the place indicated by the reblocking program. The study found that, in the month before this "period of maximum stress," income from cash gifts accounted for 44.2% of total household income among the affected families. Over a 3-month period, when families were moving and rebuilding or improving their houses, extra regular income accounted for 19.6% of total income per month on the average.

The importance of gifts and other extra regular income in the Tondo study points to the need to make a distinction between one-shot investment expenditures and what may be termed as regular operating expenditures. The willingness of relatives and other members of the extended family to contribute gifts to a member investing in a house and lot may not be due to altruism at all. Speculation in real estate is a well-developed art among the urban poor. The process of what anthropologists call "reciprocity" arrangements might have been at work in the Tondo situation. For example, a relative in the province with a son who wished to attend college in Manila had an excellent reason for sending a gift to the Tondo project participant. The gift would be reciprocated later in the form of sleeping quarters for the son, a much cheaper arrangement than paying for accommodations in a dormitory.

By all logical measures, a plot in Tondo was an excellent investment. Land in the project was sold to residents at P5 per m^2 when the fair market value was closer to P400 per m^2. Building materials loans, business investment loans, and other benefits could be availed of in the project. Tondo was located near work sites in the piers and commercial and market sites in Divisoria. It is no wonder, then, that members of the extended family were willing to invest in a plot on the site through gifts and other extraordinary income to project participants.

In recent years, many Filipinos have found employment as technicians and labourers in the Middle East, domestics and hotel aides in Europe, or crew members on foreign vessels. A number of Tondo families had relatives who had enjoyed large incomes from these sources. These relatives were a common source of the gifts invested in the Tondo project. Even for families who did not have access to "Saudi money," gifts and contributions were still given. This donation is part of the Filipino tradition commonly seen during times of misfortune, such as severe illness or death in the family. The Tondo project revealed that even times of good fortune fitted in well with the tradition.

The main dilemma for project designers, then, is where to set the cutoff for income to qualify for participation in a basic housing project. Setting too low an income requirement would run the risk of default, as well as force certain families to spend more for housing than they could really afford. Under extreme circumstances, this might cut down expenditures for food, medicine, and other basic necessities and would be detrimental to the family in the long run. Too high an income ceiling, on the other hand, would result in a "leakage" of project benefits to families who might be able to afford more economic housing elsewhere. Although a certain amount of leakage is unavoidable, especially in community-upgrading projects in which one is dealing with existing communities with given income distribution patterns, not reaching the right target group too many times does not help the project's economic efficiency and effectiveness.

In a number of countries, housing authorities set minimum and maximum income levels for project participants. For example, minimum and maximum incomes were as follows: US$350–1110 in Kenya; US$375–1000 in Indonesia; and US$684–1300 in Senegal. Such income figures, however, have to be seen in the light of other factors such as the size of the family, the amount of the housing package to be repaid, how long the repayment period is, and the monthly rates of repayment. Because of the inherent difficulties in estimating income, it is often better to be flexible when setting income requirements. Often, a range of incomes, properly weighted by family size and other considerations, seems to be the best approach. The advantages of flexibility, however, should be weighed against problems of ambiguity that may arise if income figures are too vague. Suspicions that a housing authority is using vague figures to favour certain groups can create costly administrative problems.

Proportion of Income for Housing

Housing designers have traditionally believed that, on the average, basic housing participants can devote 20–25% of their monthly income to housing. In practice, however, ratios ranging from 8–50% have been

found in a number of projects (Keare and Parris 1981). Obviously, such a wide range is of little help to policymakers. It has been suggested that what is needed is a consistent set of definitions, comparable data sets, and enough calculations to develop "rule-of-thumb" benchmarks for varying circumstances (Keare and Parris 1981).

The root of the problem is that the proportion of income a family can devote to housing depends upon many factors. For example, it makes a big difference if a family is renting accommodations or paying for a house it will eventually own. Families investing in a home are generally more willing to spend a higher proportion of their income for housing because they can see certain payoffs in the future. Renters would most likely seek other accommodations when the proportion of income they are devoting to housing gets too high. In a survey of families in Santa Ana, El Salvador, the mean proportion of income devoted to housing by homeowners in an illegal settlement was 34%, whereas the proportion for renters in the same type of settlement was 7% (Bamberger et al. 1980).

Certain demographic characteristics, such as the size of the family or the sex of the head of the household, also affect the proportion of income spent for housing. Larger families, because they require more space, may tend to spend more for housing (it should be noted, however, that their incomes might appear to be higher because other members of the family may contribute their earnings). Households headed by females, because they generally have lower incomes, normally devote a higher proportion of their income to housing.

Studies have consistently shown that the proportion of income devoted to housing tends to decrease as income increases. In other words, poor families spend proportionally more for housing even though they need more money for food and other basic necessities. In a survey of *meson* renters in El Salvador, the lowest income families paid an average of 23% of their monthly income for housing, whereas higher income families paid less than 10%. This tendency was also shown in Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) projects, in which families in the three lowest income deciles paid over 30% of their income for housing, whereas the average proportion for all income deciles was only 18% (Bamberger 1980).

The proportions mentioned above have been calculated for "normal" times. In designing a project, however, allowances should be made for the fact that the strain on a family's resources varies according to the stages at which housing expenditures occur. Expenditures tend to bunch up during the period of "maximum stress" (initial movement and construction) and level off thereafter. In the Tondo project, it was found that, during this period, participating families were, in fact, spending not only amounts that they had previously saved but also were incurring loans and using gifts and transfer payments from relatives and friends. Their regular incomes, furthermore, were diminishing because participating in mutual-aid and self-help efforts in the project took them away from their jobs.

When determining a project's affordability by estimating the proportion of family income that can be devoted to housing, a number of policy points are worth considering. First, care must be taken to ensure that assumptions regarding the proportions of income devoted to housing are not set so high that lower income families will be forced to cut back on food, medi-

cine, and other basic needs to keep up with housing payments. Second, the fact that housing expenditures vary through time may call for flexible procedures with respect to repayment. To enhance a project's accessibility, therefore, consideration might be given to lowering initial costs, especially during the period of maximum stress. Housing design, the level of community services, time requirements for housing consolidation, and whether temporary housing will be allowed or not all have important implications for accessibility.

Finally, care should be taken to ensure that certain groups are not "designed out" of projects because of affordability assumptions. Among those that were adversely affected in the past were renter families (in upgrading schemes), households depending upon the informal sector for their livelihood, single-parent households (especially those headed by females), and small-scale entrepreneurs. A common characteristic of these groups is not only low but also irregular flows of income. Although there are definite limits that can be set on low incomes, irregularity of income flows should receive greater attention because there is a danger that inflexible income proportion requirements and fixed repayment schedules might exclude households that would otherwise be eligible for project housing.

Cost of the Housing Package

The part of the housing affordability equation most amenable to intervention by housing designers is the cost of the housing package. Economists generally use the concept of "occupancy cost" to refer to this element, and usually represent it by a rental charge or total housing costs fully amortized on a monthly basis.

The actual monthly costs to a project participant usually consist of: (1) mortgage or loan repayments, (2) service charges, (3) cost of building materials, (4) labour costs, and (5) administration and management costs. In general, such costs are usually lumped together in a single monthly charge for ease of administration. It is also standard practice to require a lump sum down payment, followed by fixed monthly charges.

The main challenge in ensuring affordability is how to make project costs low enough to make basic housing accessible to the lowest possible income groups. This requires careful scrutiny of the costs of project elements. Land, for example, is an important cost ingredient. In El Salvador, where FSDVM had to purchase land at fair market prices, land costs had to be added to the total project amortizations. In Zambia, where government policy adhered to the principle that land, in itself, is without intrinsic worth, only development costs were charged to project participants. In the Philippines, land in Tondo was sold to residents at a fraction of its true market value but full development costs were charged.

Project design, of course, provides good opportunities for lowering or raising costs. In general, relatively high standards, such as the original large plot size requirements in Zambia, are the greatest source of high project costs. Even though land was "free" in Zambia, the fact that residential plots were 300 m^2 or more meant that expenditures for roads, water, sewerage pipes, and electricity were much higher.

The choice of building materials used in a project also directly influences costs. In India, some of the cheapest projects provided only a serviced site — families were allowed to bring the old materials saved from their shanties and they used these to build their "new" homes. In the Philippines, building materials loans could only be redeemed in terms of "light" materials such as lumber and plywood, instead of cement, hollow blocks, steel reinforcement bars, and other "heavy or permanent" materials. In contrast, projects in Senegal, El Salvador, and Zambia all featured the use of permanent modern materials, with obvious implications on project costs. In Zambia, use of cheaper materials was encouraged by project designers, but the people elected to use more expensive materials.

In sites-and-services projects, the various "core housing" options also affect costs. Again, the cheapest option is a serviced site. Progressively more expensive options take the form of sanitary core only, sanitary core and one room, sanitary core and two rooms, etc. Here, however, cost considerations should not be limited to the core options alone. Participating families also incur a lot of other costs before they can move into the project and begin consolidating their homes. Thus, it was found in Kenya that providing a serviced site with only a sanitary core actually forced more families to spend more in the short run than a site with a sanitary core and a room, which allowed the family to move into the project immediately. This arrangement saved families the expense of renting a dwelling in the old site while working on their new house; transportation costs for the builder and the building materials used; and the cost of safeguarding the building materials left on the site, which would have been stolen if no one was watching the site.

Another approach that raises project costs is the traditional preference for finished houses. Often, the tendancy to attempt to finish a house in one costly effort comes from project participants themselves. Over-ambitious plans catch up with the limited resources, however, and construction may be stopped even before the structure is ready for temporary occupancy. In some instances, however, project designers may dictate that houses be finished within a specified period. In the Dandora project in Kenya, for example, the basic livable structure must be finished within 18 months. In Lusaka, the housing authorities ruled that no family could move into the site until a basic livable core was finished.

Even the building of "model homes," well meaning as it is, may encourage project participants to attempt to build an expensive house and complete it as soon as possible. In Senegal, the model homes built by the housing agency cost as much as CFAF3 million to complete. Seeing these designs, it was only natural for project participants to attempt to build houses similar to the models. In some ways, the extremely slow rate of project occupancy might be due to this indirect preference for the expensive model houses.

As we shall see in subsequent chapters on housing consolidation, use of mutual aid and self-help, and choice of building materials and building standards, much of the creativity in basic housing programs has been reflected in reducing project costs. Traditional housing notions are difficult to change, however, and project costs continue to be unrealistically high because of the insistence of participants for beautiful finished houses located in well-regulated subdivisions that are nestled in landscaped surroundings. Even now, many housing authorities still measure their success in terms of how solid and beautiful the houses in their projects are

and how quickly these houses have been built. In countless visits to sites-and-services projects all over the world, the proudest housing managers have shown off the biggest and most solid homes, seemingly ashamed of the temporary shacks occupied by the families still engaged in housing consolidation a number of years after they have moved into the project. If the housing managers really understood their function, however, their preferences would have been reversed, for their real client is the individual struggling for an affordable shelter in an urbanizing world.

Evaluation of Projects

In general, how successful have basic housing projects been in providing affordable housing to low-income families in slum/squatter areas? To respond to this question, it is useful to determine the target groups that have been reached and served by such projects, find out if other equally needy groups have been excluded, and assess whether or not the lives of project participants have been improved.

Target Groups

Most basic housing projects are designed to serve families between the 20th and 60th national urban income percentiles. Because projects adhere to the policy of cost recovery, which is closely related to the replicability of projects, households below the 20th percentile are considered to require greater subsidies than those possible under basic housing programs. Families above the 60th percentile, on the other hand, are considered to be wealthy enough to avail themselves of housing on the open market.

As shown in Table 1 the capacity of a project to reach the poorer urban families depends upon whether it is a community-upgrading or sites-and-services project. In general, upgrading projects serve more lower income families, as indicated by the fact that 60% of the families in George and 51% in Tondo belong to the lowest income groups. This compares with 44% in Sonsonate, 43% in Santa Ana, and 54% in Lilanda.

The ability of upgrading projects to reach the poorer people arises from the in situ nature of such projects. Unlike sites and services, where a "qualifying" income level acts as a screening device, community upgrading

Table 1. Income groups served by projects (%).

	Sites and services				Community upgrading	
	El Salvador		Zambia		Philippines	Zambia
National urban income percentile	Sonsonate (1977)	Santa Ana (1976)	Lilanda (1980)	Matero (1978)	Tondo (1979)	George (1976)
0–20	6	11	28	18	27	38
21–40	38	32	26	38	24	22
41–60	37	38	16	14	23	17
>61	19	19	30	30	26	23

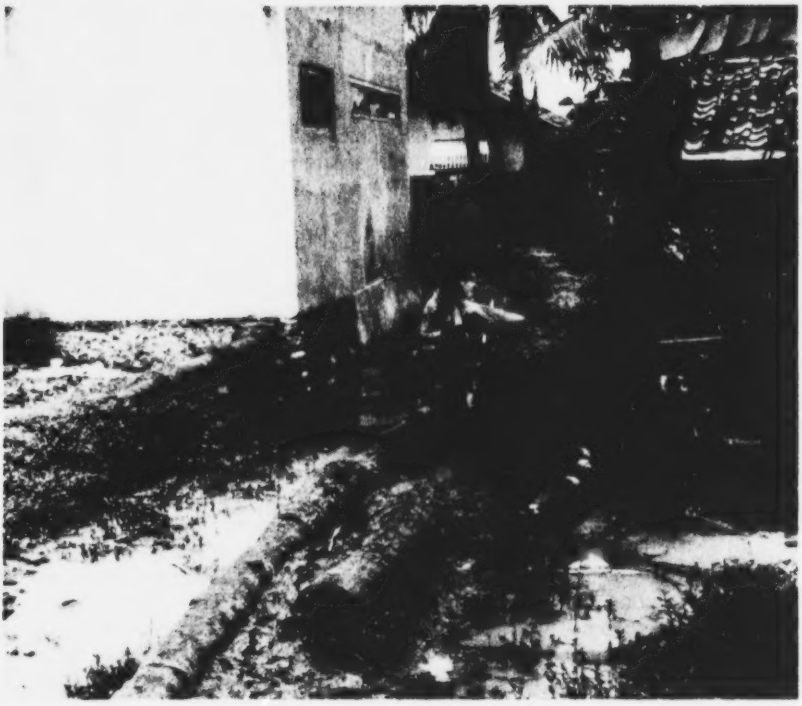
Source: Keare and Parris (1981).

must initially include all families living within the area. As developments are introduced, however, some of the poorer families might have to be excluded from the project. Experience has shown that such families tend to be renters, single-parent households, young families living with parents or relatives, and the handicapped.

Dislocation of the poorest families can be prevented or reduced when basic services are introduced without efforts to rationalize housing and other structures, subdivide and sell land, or reduce the density of a community to certain acceptable standards. This has been tried successfully, for example, in the Kampung Improvement Projects (KIPs) in Indonesian cities and in central city redevelopment schemes in Kingston, Jamaica. In Indonesia, KIP introduces a "basic sanitation module" composed of an artesian well or deep well, a water receptacle, and a public toilet. Pathways and roads, garbage bins, drainage canals, and community centres are also constructed. As much as possible, structures within the community are not disturbed at all. Repayment of project costs comes from service charges and assessed fees. In Jamaica, similar basic services have been introduced, although severe repayment problems have been encountered. Slum landlords who often do not even live in the areas upgraded are reluctant to pay the service charges. Low-income residents are equally reluctant to pay because they argue that property owners whose properties are improved should shoulder the project costs.

Of particular concern in sites-and-services projects are the high initial and recurring costs involved in moving into the area and building a house there. Such high costs might have been responsible for the relatively small proportion of project participants in Sonsonate and Santa Ana belonging to the lowest 20th income percentile. Although the El Salvador projects have the smallest proportions of families belonging to the 60th and above percentiles (suggesting that the projects were catering to the intended target groups), this pattern lends credence to the oft-repeated charge that sites and services serve mainly as a "creaming off" process, whereby the better off among the urban poor are taken out of existing slum/squatter areas and moved to project sites. In the process, only the "dregs" are left behind to fend for themselves. According to Peattie and Doebele (1976), this disrupts the normal economic relationships existing among income groups in slum/squatter areas and only serves to weaken the organizational and other capabilities of the less fortunate. At the same time, the "success rate" of sites-and-services programs is assured because they have the most able of the low-income families.

In this light, community-upgrading projects are less disruptive to community life. As shown in Tondo and George, the "normal" distribution of lower and higher income families in project communities has been maintained to a large extent. Whatever symbiotic relationships existed between lower and higher income families had not been disrupted. An even greater number of poor families could have been absorbed in Tondo, however, if housing managers had devoted as much attention to rental accommodations as was done in Zambia. The emphasis in Tondo was for individual home ownership, which displaced a number of families that were renting or living with other families. Although renters were given the option of moving to the sites-and-services project in Dagat-Dagatan, the higher project costs there tended to discourage them.



Walkway prior to the implementation of the Kampung Improvement Program, Jakarta, Indonesia.

Another concern of both sites and services and upgrading is the extent to which poorer families drop out of projects, which results in higher income families that were not originally allocated plots taking over. A study of 101 plots that had been abandoned by allocatees indicated that 34% of the families had formerly been renters, 10% were households headed by females, 21% were single but considered heads of family, and 18% were self-employed. This distribution suggested the possibility of specific groups being eased out of the projects by higher-income groups.

Further analysis of the research findings, however, revealed that income did not seem to be the primary factor involved in plot abandonment. A check of the incomes of the families showed that all but one had declared an income below the minimum level required for participation in the project. It was concluded, therefore, that speculation could have been a stronger motive in abandoning plots. Informal interviews revealed that the profit in "selling" rights of occupancy in the project was as high as 120%. In fact, project authorities had expected that about 3% of the plots would change ownership some time in the future and another 3% would be sold in unauthorized sales.

Initial surveys in Tondo have also revealed that about 4% of legitimate project beneficiaries have sold their rights illegally (NHA 1980a,b). As

Improved walkway in Kampung Improvement Program site.

structures within the community are upgraded further, there is a growing fear that the selling of rights will increase because of the increasing offers from higher income households. As in Zambia, however, research data suggest that it is not affordability that is primarily responsible for this phenomenon but the fact that a number of families are finding it more logical to reap the benefits from the project sooner, sell their rights, and then move to another slum/squatter community. In the Philippines, the willingness of higher-income families to buy plots in Tondo might be an indication of the shortage of middle-income housing. Project authorities have reasoned that, as long as there is a scarcity of dwellings for particular income groups, prohibition of sales would be difficult to enforce due to the dictates of the housing market.

Conclusions

Establishing affordability criteria is one of the most important tasks in implementing a basic housing policy because it determines the eventual beneficiaries of projects. Based on past experiences with basic housing projects, it is clear that there is a need to define and obtain a better understanding of the living conditions of low-income households in order to obtain more accurate information on incomes and expenditures. Socio-

economic surveys reveal only part of the picture. In particular, they do not provide adequate information on transfer payments and gifts, which seem to make up a significant proportion of income in slum/squatter communities.

The regularity or irregularity of income flow also need to be better understood because of their affect on affordability. In particular, the capacity of low-income families to raise considerable resources during periods of "maximum stress" is worth noting. Most affordability measurements are based on regular monthly amortizations even though income flows seem to be irregular among the poor. There is a need to determine what types of families are considered eligible for or screened out of projects because of this mismatch in income flows.

The ability of community-upgrading projects to penetrate the lower urban income group percentiles speaks well for its usefulness in a basic housing program. However, upgrading is less effective as an instrument for fostering greater equity because it also provides benefits to the relatively high-income households living in slum/squatter areas. In contrast, sites and services can be designed more effectively for achieving greater equity because affordability criteria can be enforced more efficiently in such projects. One problem with sites and services, however, is its inability to offer shelter and services to the poorest among the urban poor.

These characteristics of upgrading and sites and services argue for a joint approach in which both programs are included in a comprehensive urban development strategy. In fact, this is now the common practice. Basic housing programs in Zambia, the Philippines, and El Salvador are proving most successful because they reap the benefits from the complementarities of the two basic housing approaches.

Despite the programs' successes, however, the inability of basic housing programs to reach greater numbers of lower income groups is a cause for concern. Evaluations also reveal the tendency of programs to assist the more able among the urban poor, creating a creaming off and even polarizing effect. This is a particular danger in sites-and-services programs where the polarization might be reflected in the physical separation of the more able and the least able. It is of less concern with community upgrading where, at least, the socioeconomic fabric of the community is not disrupted.

An unstated aspect in the discussion on affordability is the extent to which full cost recovery or subsidization policies will be followed in basic housing programs. It goes without saying that if subsidies are increased, affordability requirements can be set in such a way that projects can become more accessible to lower income groups. On the other hand, public resources are limited, and the replicability of housing programs will also be hampered by large subsidies. These and other issues are discussed in subsequent chapters on mutual aid and self-help, housing consolidation, building standards, and cost recovery.

MUTUAL AID AND SELF-HELP

2

Digging drainage canals using the mutual-aid approach in the Tondo project, Philippines — an effective method of reducing construction costs.

Mutual aid and self-help are two of the most important elements in sites-and-services and community-upgrading programs. As defined by the Salvadorean Foundation for Development and Minimal Housing, *ayuda mutua* or mutual aid is "the cooperation of all participating families in teamwork" to construct project infrastructures or the basic parts of a house. Self-help, on the other hand, is the use of a participating family's skills, labour, organizational talents, and managerial skills in the construction and improvement of its own house (Bamberger et al. 1980).

To an organization like the Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM), housing construction through mutual aid and self-help is a methodology for "improving more general social and economic changes in the condition of the urban poor" rather than merely a matter of producing a certain number of housing units. The foundation's goal is to bring about qualitative changes among project participants that will stimulate them to build more housing. Among other project designers, however, mutual aid and self-help are seen primarily as instruments for making housing production more efficient. In the main, the hope of many designers is to lower housing costs through the use of mutual aid and self-help.

The conventional view is that a house built by a contractor; designed by an architect; constructed by carpenters, masons, plumbers, and electricians; and managed by a professional site manager would probably cost a lot of money. However, if homeowners sketch what they want, relatives and friends help build the house, and technicians and professionals are hired only to carry out difficult tasks, such as those related to electricity and plumbing, costs would probably be much lower. Furthermore, mutual aid and self-help make the building process more responsive to the homeowner's needs and resources. House building is not constrained by time, especially after the basic core of the dwelling is finished and the family can move into and live in it.

As an approach to providing basic housing for the urban poor, mutual aid and self-help are based on the assumption that there is surplus labour in low-income areas (i.e., there are high rates of unemployment and underemployment). It also assumes that low-income people have the skills needed for house construction and that there are traditions of mutual cooperation that facilitate working together.

Surplus Labour

Early studies of slum/squatter areas indicated high levels of unemployment and underemployment. Residents in such areas had limited education and very few technical skills. They came primarily from rural areas where previous occupations had not prepared them for city jobs. Observations of life in such areas described crowds of able-bodied men and women

hanging around, idly gossiping or drinking together, having nothing better to do with their time.

Survey findings in three slum/squatter sites in Metropolitan Manila are typical (NHA 1977). Unemployment rates in these communities ranged from 18% in Navotas to 46% in Bagong Barrio. Of the 10 904 household heads surveyed in Bagong Barrio, only 23.7% were employed. The rest were distributed as follows: 13.5% were jobless but looking for a job; 21.0% were jobless and not looking for a job; 9.9% were chronically unemployed; 17.7% were students; and 14.2% were housewives.

On the basis of survey results and other data similar to those mentioned above, mutual aid and self-help components were introduced in many World Bank-supported basic housing projects. Experience with these projects, however, has been most surprising (Churchill 1979).

> Experience with World Bank-financed projects indicates that self-help has an important although somewhat more limited role than was originally perceived.
>
> The amount of surplus labor available within the household appears to be limited and less self-help is being observed on project sites than was originally anticipated. Unemployment is not high among low-income households and any underemployment is likely to go more profitably into efforts to expand employment in the existing occupation rather than diverting this labor into shelter construction.

The actual experience in World Bank-supported projects and the perceived conditions in slum/squatter areas did not match at all. Even in El Salvador, where FSDVM concentrated administrative resources to promote mutual aid and self-help, the response of families was not as positive as expected. In the Santa Ana project, in fact, as many as 30% of selected participants dropped out of the project before the completion of mutual-help obligations. With the drop-out rate stabilizing to about 2.6% later on, it was obvious that the mutual-aid requirement played an important role in the drop-out rate, although some administrative problems related to finding the correct addresses of participants also added to the problem (Lindauer 1979).

A number of studies have shown that problems with mutual aid and self-help are related to the serious misunderstanding of employment and underemployment conditions in slum/squatter areas. Part of the problem is definitional. Most data on unemployment are based on socioeconomic surveys in which some of the words used by the researchers are not defined in the same way by the respondents. The truth is that most able-bodied individuals in low-income areas earn some money, although what they do to earn that money is not readily classifiable in a table of occupational titles. A direct question like "What is your occupation?" in a survey would probably elicit varying responses. Even a question like "Have you been employed during the last 30 days?" is subject to some misinterpretation because the respondent might define employment in formal terms.

An underlying cause of problems is the fact that employment and unemployment have formal definitions that require regularity, predictability, and recurrence, whereas what people do in slum/squatter areas to earn a living may be irregular and unpredictable. A person in the slums may carry loads at the pier for a week and then be laid off. Rather than stay home, the individual frequents the market area and helps to load and unload

merchandise for which payment is received in varying amounts. Such a person might be classified as unemployed or underemployed in a survey. The important thing, however, is that at the end of each day the person usually is able to hand over a sum of money to their spouse.

Housing agencies may encourage project participants to participate in mutual-aid projects by putting a monetary value on a person's labour contributions. For example, a family may be given a chance to participate in mutual aid instead of paying the down payment on a house and lot. By working on Saturdays and Sundays in the project along with other individuals participating in mutual aid, the family may be able to accumulate enough "funds" to meet the down payment.

Even a policy like the one mentioned above, however, has to contend with what economists call the "opportunity cost" of labour. When offered mutual-aid work, project participants have to ask whether they will earn more by continuing what they are doing or derive more benefits from the mutual-aid work. One problem with a question such as this is that costs and benefits are not all translatable into dollars and cents. For example, a street vendor who is absent from a street corner to participate in mutual aid may be given a higher monetary equivalent for the labour involved. However, customers who normally buy from the street vendor might transfer their patronage to another vendor, another vendor might take over the absent vendor's selling location, the supplier of the goods might consider the vendor to be unreliable and choose another outlet, or the police officer on the beat whom the vendor has been bribing regularly might withdraw his protection. Thus, the direct and indirect costs and benefits involved in informal sector work are extremely difficult to define and quantify. A person refusing to take part in mutual-aid work might have very good reasons that are only partially explained by "opportunity cost" and related calculations.

Another observation with respect to employment in slum/squatter areas is the high proportion of individuals employed in the informal sector. For example, a 1977 survey in a Lusaka community indicated that 76.6% of household heads were employed, 17.2% were self-employed, and 6.2% were unemployed. Among the employed and self-employed, about 22.2% were working in the informal sector. Examples of jobs in the informal sector included vending, unpaid family work, and working as an artisan or part-time labourer.

One of the major findings of research on the informal sector is that jobs in this sector may pay as well or even better than comparable positions in the formal sector. If this is the case, then participation in mutual aid and self-help might cost some people more. It is perfectly logical, therefore, for people in such a situation to hire others to build and improve their houses instead of doing it themselves.

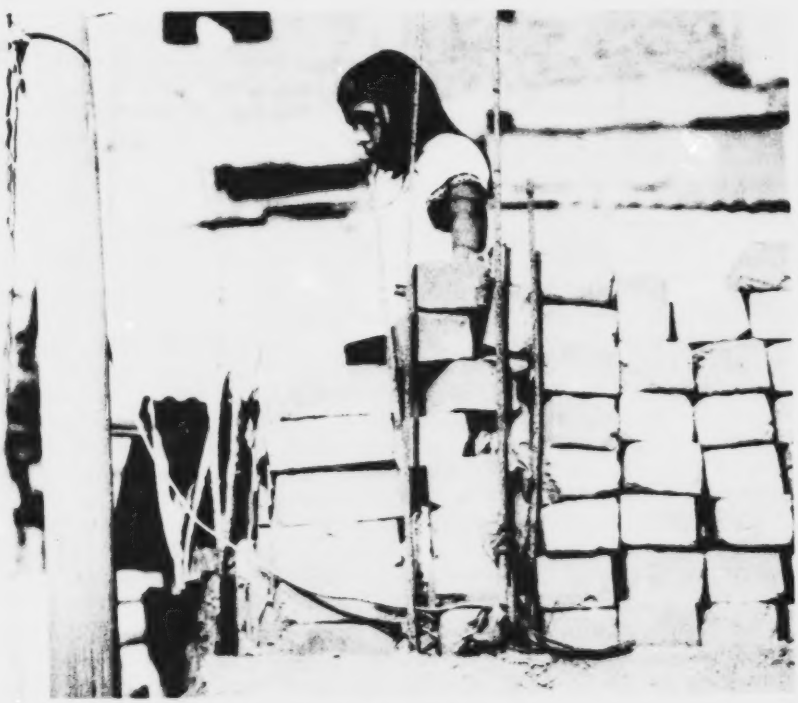
Construction Skills

Another preconception about squatters and slum dwellers is that they possess basic carpentry and other skills that can be used in building a house. This is often related to the rural backgrounds of low-income families, which are supposed to have predisposed them to do-it-yourself approaches.

Actual experience in community-upgrading and sites-and-services projects, however, has revealed that project participants often lack the skills needed for construction. Case studies in the community of George in Lusaka, for example, revealed that about 90% of the participants felt that they did not have the skills needed to build a house of an acceptable standard. Most people could use a hammer, saw, or hand drill but they did not consider these as sufficient skills for building an acceptable house.

The important consideration here is the concept of an "acceptable house." In almost all projects, the preferred house is made of modern permanent materials such as cement, concrete hollow blocks, steel reinforcement bars, glass, and galvanized iron or aluminum sheets. These materials require the specialized skills of masons, bricklayers, carpenters, and sheet-metal workers. High status and prestige (and greater economic value) are accorded houses that are built by contractors. In the original slum/squatter areas, where makeshift materials were used, families could use mutual aid and self-help. However, in projects, where the standards of acceptable housing were a lot higher, the amateur efforts of homeowners were no longer sufficient.

Many projects preclude the use of traditional skills in self-help, often without meaning to. For example, a strong preference for the finished house makes it difficult for the self-builder to construct a dwelling on time. Sometimes this preference is only indirectly conveyed, e.g., when "model



Building with bricks using the self-help approach, Lima, Peru.

homes" are constructed to a finished stage and participants are given the impression that project designers want to see the actual project houses built as soon as possible. At times, the completion of the livable unit is actually required, as in the Dandora project in Nairobi, where a family has 18 months within which to complete the basic unit.

Building materials loans are often given in kind, in an effort to encourage project participants to work on the house themselves. The theory is that giving the loan in cash may result in the participant buying less materials and using the rest of the money to hire an artisan or tradesman to build the house. In most instances, however, the building materials available in the materials stores are modern, such as hollow blocks and steel bars, which people do not know how to work with. Thus, many families end up using their savings or borrowing extra money from other sources to hire skilled workers. Because quite a number of families do not have the resources to hire workers, however, construction is often delayed and costs to the borrowers increase.

The shortage of skilled workers in basic housing projects has encouraged the setting up of training programs in masonry, plumbing, electricity, carpentry, and other skills. In Jamaica, a unique way of training and using trained workers was borrowed from Cuba. The system involved the formation of *micro-brigadas* or "workers' brigades," usually composed of seven individuals to be trained in various skills (a mason, a bricklayer, a plumber, an electrician, and three carpenters). Members of the brigade were chosen from a group of project allocatees. After their training, they worked on the project and rendered technical assistance to other participants. They were allocated housing units in the project they worked in, thus assuring that proper skills would be available for maintenance and repairs in the future.

In Cuba, where the brigades had been used for some time, they were quite successful. Political changes in Jamaica, however, never gave the brigades a chance in that country. With the change in government in 1980, the Jamaican brigade members trained in Cuba were suspected of ideological partisanship and the approach was never tried.

The shared use of trained and skilled workers in group construction, however, has been used most successfully in El Salvador. In FSDVM projects, it was found that mutual-aid groups did not usually have an even distribution of skilled workers, such as masons and carpenters. The result was that some very skilled workers were doing menial tasks within their groups because of the particular stage of construction they were at, while other groups not having skilled workers were hiring skilled people from outside to help them. By identifying all of the skilled workers and pooling them together, each mutual-aid group could "borrow" skilled people when they were needed. The result was a more equitable distribution of scarce skills and greater efficiency in the project.

Mutual-Aid Traditions

The early literature on slums and squatters described cultural traditions of mutual aid as being glorified at times to such an extent that they were presented as the ultimate solution to basic housing problems. Such traditions as *bayanihan* in the Philippines, *gotong royong* in Indonesia, and

panchayati raj in India had rural origins but they were thought to have accompanied rural–urban migrants to the slums. Whereas in the villages mutual aid was useful for such tasks as plowing, planting, and harvesting, it was believed that it could now be used in community projects such as digging drainage canals, building roads, and constructing houses.

Indeed, mutual-aid traditions are alive and well in many low-income communities all over the world. In the Tondo project in the Philippines, one of the most difficult steps in "reblocking" was moving houses to their designated places in the new plan. With very little prompting from project authorities, the residents organized themselves into informal bayanihan groups and moved the houses, each family taking its turn. A sociologist's account of one particular move is nostalgically reminiscent of village life.

> Today, we observed the *balikatan* or moving of the house belonging to the Cruz family in Area 1.
>
> Men started arriving at the Cruz house around seven in the morning. A few women arrived much earlier, helped Mrs. Cruz with marketing and cooked a huge meal.
>
> After a quick breakfast, men started taking out the furniture and belongings from the house. Then they broke up into small groups, each one working on a specific task. Some lashed long bamboo poles to the bottom of the house. Others built wooden stilts that the house could rest on while being moved. When the stilts were finished, another group sawed off the house posts. The interesting thing was that nobody seemed to be in charge. Each man seemed to know exactly what to do.
>
> The house was ready to be moved around 11:00 o'clock. The amazing thing was that around a dozen men who were not involved in the process before suddenly came around and helped to shoulder the bamboo poles and move the house. The house was moved amidst shouts and taunts and earthy jokes. The women were especially boisterous in goading the men, challenging their strength and manhood and at the same time cheering them on.
>
> The project architect had marked with stakes the exact new location for the house. After a few moves and adjustments, it stood in its proper place, perfectly aligned with other houses moved the previous days.

The mutual-aid process described above was repeated many times in Tondo until the reblocking program was completed. Today, a huge picture of a house being moved bayanihan style adorns one wall of the National Housing Authority and another is the chief display in the community centre in Tondo. Both the people and the housing agency are proud of the mutual-aid tradition and there are plans to continue using it in future projects.

Although mutual aid was effective for moving houses, project managers in Tondo found that it didn't quite work in other activities, e.g., it wasn't effective in work requiring sustained effort over a long period of time. During the mutual-aid construction of a community centre, for example, many volunteers came during the first couple of days but their numbers dwindled after a week. People said that they had something else to do, that others should do volunteer work also.

Mutual aid was also less useful for tasks requiring conformity and with exacting specifications. Many volunteers for the ditch-digging job for laying water mains in Tondo complained, for example, that the contractors

were too demanding. The pipes had to be installed at specified angles and connected in certain ways. Often, the job had to be done several times to get the exact pipe position required. Volunteers resented being told what to do by engineers and technicians — "as if they were paying us," muttered one mutual-aid worker.

Mutual-aid work, despite its voluntary nature, was not exactly free. In the case of the Cruz family, the house-moving required serving breakfast and a big lunch to more than 30 people. It also obligated the head of the family and other able-bodied members to help other families in the community when their turn came up. These reciprocal obligations, which Filipinos call "debts of gratitude," are taken seriously by the community. The "indebtedness" has to be repaid not just in house-moving but in other requests for assistance as well.

Because of the voluntary and unorganized nature of mutual-aid work, it can result in serious project delays. In El Salvador, the fact that mutual-aid work was carried out only on weekends caused serious delays in project schedules. In Zambia, project delays forced some private contractors to pay some workers to motivate them to perform better in the projects. When this became known among mutual-aid volunteers, they also demanded payment, which virtually ended volunteer work in the projects.

Advantages of Mutual Aid

Among the agencies managing basic housing programs, FSDVM in El Salvador has the strongest commitment to mutual aid. This commitment is based on the following:

(1) Mutual aid is the social and organizational basis of community development efforts.

(2) It replaces a narrow attitude based on the family with a broader one based on the community.

(3) It is more efficient to work in groups of 20 than individually.

(4) Families get to know each other in mutual-aid work and interact with each other even before they move into their houses.

(5) Mutual aid replaces the initial down payment and facilitates access to home ownership by even the lowest income groups.

To qualify for a plot in an FSDVM project, a family must agree to participate in mutual-aid work on Saturdays (14:00 to 17:00 hours) and Sundays (08:00 to 14:00 hours). Each person engaged in mutual-aid work is credited C5.5/day, which goes toward the down payment of C450. A mutual-aid group is made up of 20–30 families. FSDVM appoints a social worker or "social promotor" for every five groups. A technical team (engineer, architect, construction technician, and foreman) is also set up to help the mutual-aid groups.

The first accomplishment of mutual-aid work is the creation of a spirit of cooperation among the members. Each group elects a president, treasurer, and warehouse watchman. They hold a series of meetings initially conducted by FSDVM workers but later by themselves. All members of the group sign a mutual-aid agreement. They work on each other's houses, not knowing who will eventually get a house until all units are completed. Building materials issued to the group become everyone's responsibility. At the end of the mutual-aid work, the families are so used to cooperating with each

other that they make up a harmonious community within the project. This spirit of cooperation has been most beneficial in project maintenance and even in making sure that fees and amortizations are paid promptly to FSDVM.

Mutual aid made FSDVM projects available even to low-income families because they could use their own labour as a down payment. In a survey of project participants in San Miguel, about 75% of the families said that they would not have been able to participate in the project without mutual aid because they did not have enough savings or other resources to pay for the down payment.

The use of mutual aid significantly reduced housing costs for project participants. Studies in Sonsonate indicated that mutual-aid labour saved about 27% in costs. Even when the delays encountered in the project because of mutual aid were considered, savings were still about 12% compared with the costs that would have been incurred if contractors had been used.

To FSDVM, the advantages of mutual aid were reaped not only during the early phases of the project but also later on. The significant accomplishment, according to FSDVM, was reflected in the replacement of a vertical "authority relationship" between the agency and its clients by a "horizontal cooperative relationship" among the people themselves. The organizational training during the mutual-aid phase taught the families in a group to discuss and solve problems in a cooperative way. This instilled strong pride in the community, which was reflected in the construction of community centres, parks, schools, and clinics. There are also indications that the high cost-recovery rates in the project (FSDVM has only 2.3% of its loan portfolio in arrears) are due to this community pride.

Self-Help Approaches

The process of self-help involves the use of a project participant's initiative, skills, and resources in the construction of a house. Depending upon the participant's extent of commitment, self-help might take any of the following forms: (1) participant prepares house plans and hires a contractor to build the house; (2) participant prepares plans but acts as contractor, hiring tradesmen and workers as needed; or (3) participant prepares plans and builds house with own labour.

When a family hires a contractor to build a house it has designed, the self-help component is more managerial than technical. The family decides on the size of the house, materials to be used, number of rooms, level of services to be put in, etc. On the basis of these specifications, the contractor might build the house under a lump-sum contract. The family and the contractor might also agree that payment would be on the basis of a daily rate. In some instances, the construction might be broken down into stages (foundation work, roofing, siding, and finishing) and specific payments as well as completion times might be set.

When a family choses to be its own contractor, a larger role is played by it in decision-making. Tradesmen and workers might be hired on a daily basis or for the completion of specific stages. Family members might work side by side with the hired tradesmen or elect to do most of the work themselves, seeking expert assistance only when needed.

Technically, pure self-help is when the family does everything to build a house. This presupposes competence and skills as well as availability of time. It also assumes access to building materials as well as the capacity to install appliances and equipment.

The self-help approaches mentioned above constitute a continuum, based on the role played by the family in planning and building the dwelling. The use of each particular approach would have implications for costs, pace of construction, quality of work, and family satisfaction or dissatisfaction with the house.

All things being equal, the fastest way to build a house is probably by hiring a contractor. This is particularly true of lump-sum contracts, in which case the contractor attempts to finish the house quickly to reduce costs and increase the profit margin. Because the contractor assumes the main risks, however, the costs to the family would be quite high. Also, unless the family had specified in writing the specific tasks to be done and the time by which they have to be completed, variations between expectations and what was actually accomplished might reduce satisfaction.

At the other end of the spectrum, costs might be reduced dramatically by the family taking on the tasks of designing and actually building the house, but the time of completion might be longer. This is particularly true if family members cannot work on the house full time. One advantage with complete self-help is that the family can use whatever materials are readily available. The pace of construction might also suit the needs and resources of the family better. However, as mentioned earlier, pure self-help does require skills, both managerial and manual.

To optimize the benefits from the various self-help approaches, housing managers have combined characteristics of each approach in their work programs. In Zambia and the Philippines, for example, the construction of core houses has been accomplished using contractors, with further housing consolidation being carried out by project participants using various self-help approaches. In this way, the advantages of contracted work (uniformity of design, quality control, economies of scale and lower costs, tightness of scheduling) were gained. In due time, the advantages from self-help are attained by further improvement of the dwelling through the family's efforts.

Advocates of self-help construction have been critical of project interventions that accelerate the pace of consolidation and thereby limit the scope for self-help. Such interventions include the designing of completely finished houses that predispose project participants toward faster completion of units, the imposition of time limits within which houses must be finished, prescribing a limited number of building materials that can be used, or the setting of unrealistically high standards with respect to quality of construction or types of building materials used. The ideal seems to be that the basic needs and the resource capabilities (or limitations) of project participants should be the main determinant of the pace of consolidation, costs, and building standards. As seen in many basic-housing projects, this ideal is rarely fulfilled.

Evaluation of Self-Help Approaches

The extent to which self-help has been used in basic housing projects varies. In the Philippines and El Salvador, self-help played an important role in house construction and improvement. However, in Zambia and Senegal the use of self-help was less than expected.

In El Salvador, FSDVM delivers an incomplete house to a family. By the time the family moves into the structure, it has built an area of 30 m^2 on the average. In about 2 years, the family adds 15–20 m^2 to the livable part of the house through self-help. After that, additional improvements seem to be mostly decorative, to improve the house's appearance.

The extent of self-help in the Tondo project in the Philippines was seen in the income and expenditure study that revealed that although house repairs and improvement used up about 68.2% of resources during the month when a family moved to the new site, only 3.9% of total expenses went toward payments for hired labour and 64.3% went toward building materials. Over a 10-month period, about 11.0% of total expenditures went toward house repairs and construction, with 7.2% of this going toward the purchase of building materials and only 3.8% for labour. This meant that the family did most of the work on the house, with technicians being hired only to carry out the difficult tasks or those requiring a professional licence.

In contrast, evaluation of the Zambian experience revealed that 92% of households in a normal sites-and-services project in Matero used hired labour to improve their houses and 85% of households in a basic sites-and-services project in Lilanda did the same. When researchers estimated the value of self-help labour at K0.75/hour, the proportion of the value of self-help labour was 27% in Matero and 41% in Lilanda.

A number of factors have been identified as being primarily responsible for the limited use of self-help in basic housing projects. These include: (1) a lack of time for self-help; (2) too fast a pace of housing consolidation; (3) the types of building materials used; (4) the higher status given to professional construction; (5) difficulties with materials loans; and (6) problems with technical assistance.

Lack of Time

As mentioned earlier, unemployment rates in slum/squatter areas were not as high as originally expected. Thus, even if participants wanted to use the self-help approach, they could not do so because they had to devote more time to their jobs. Studies in Lilanda community in Lusaka, for example, found that household heads worked about 45 hours/week on the average. Thus, these individuals preferred to use their limited leisure hours for other tasks and not on housing construction.

Pace of Consolidation

Housing authorities generally prefer an accelerated pace of housing consolidation because it reflects well on their efficiency. When project participants have to complete a house to an acceptable stage within a limited time, they hire labour instead of working on the house themselves. The acceleration of construction might be imposed (as in Kenya and Zambia) or it may be indirectly suggested (as in Senegal and El Salvador).

The effect, however, is the same — when people feel pressured into completing their houses within a limited time, they turn toward contractors and not self-help.

Building Materials

Some building materials are easier for low-income people to work with because they are more familiar with them. This familiarity encourages them to use the self-help approach. Most projects, however, encourage the use of modern and permanent materials. This inhibits the people from using the self-help approach because they do not know how to work with the materials. In general, less self-help is observed when houses are made of hollow blocks, cement, and other permanent materials. On the other hand, more self-help is used when people are allowed to use their old and discarded materials to build their houses. Self-help is also more common when people build with timber, sun-dried bricks, or wattle and daub.

Status and Prestige

People generally want the best house they can afford — this means houses made of modern materials and built by professional builders and contractors. In most countries, self-made houses using indigenous materials do not have high status and prestige within the community. In Jamaica, for example, despite the fact that people have been building houses with nog and wattle and daub for centuries, these types of houses are generally regarded as "poor dwellings." The same is true in Zambia. A survey revealed that households charged considerably higher rents for houses made of modern materials than houses made of sun-dried bricks. Because renting was an important source of extra family income, project participants preferred to hire workers to build their houses.

Materials Loans

Generally, a properly working materials loans program encouraged families to use self-help. However, if the program deals only with a limited variety of materials, if there are shortages and delays, and if there are procedural problems, people might be discouraged from using self-help and turn to other material sources and contractors. As mentioned earlier, most building materials loans programs deal only with a limited number of materials (mainly hollow blocks, cement, and lumber). Thus, builders preferring to use indigenous materials have to seek them elsewhere. Shortages of materials cause delays and people lacking the time to wait for the materials get frustrated and ask contractors, who have access to other material sources, to build their dwellings.

Technical Assistance

In a number of projects, technical assistance in construction was given by authorities. There has been a tendency on the part of the professionals hired to render technical assistance, however, to emphasize the use of modern building materials, thus discouraging self-help. In Zambia, it was observed that people hired to provide technical assistance fell into the bureaucratic practices of mainly supervising people and calling their attention to failures to observe certain building standards imposed by the

Dagat-Dagatan project in Tondo (Kapit-bahayan). (The Philippines has experimented with modern housing but has found it very expensive.)

housing agency. Instead of teaching people how to build according to self-help principles, they saw themselves as watchdogs for maintaining project efficiency. As such, they lost their effectiveness and people tried to shun them.

Conclusions

To date, project experiences with mutual aid and self-help have revealed that the high expectations generated by the literature on slums and squatters have not been met in actual basic housing programs. The experiences reveal, however, that this is due to certain problems with the design and implementation of the projects rather than to inherent difficulties with mutual aid and self-help. These approaches have an important role to play in basic housing programs.

Project evaluations have shown that practices such as the acceleration of the pace of construction, the choice of modern and permanent materials, material loans programs, and technical assistance and construction procedures are currently discouraging self-help and mutual aid. The insistence on using these practices is rooted in professional housing construction practices that persist up to now. These include the emphasis on a professionally designed and aesthetically pleasing house, the preference for a finished dwelling rather than a slowly consolidated one, the design of standardized look-alike houses as the main features of a housing project, and the attachment to acceptable housing standards. Often, these practices are justified in terms of safety, health, efficiency, and legal standards. In reality, however, they reflect the professional approach of the architect or engineer that a house is something that is built and delivered by professionals to their clients who then pay for this professional service.

Evaluations in Zambia and the Philippines have shown that self-help is used more by lower income families (those who cannot afford to pay for the services of professionals). If basic housing projects are to cater to their true clients, therefore, self-help would play a much stronger role in house construction and improvement. The relatively high proportion of families currently hiring contractors and skilled workers is only an indicator that the true target groups for basic housing are not being fully served yet. This should be an immediate and serious concern of designers of basic housing projects.

HOUSING CONSOLIDATION

3

Housing consolidation through time, Lima, Peru. (The houses nearest the road show the greatest improvement.)

Housing consolidation is the process by which families allocated plots in a project progressively develop their houses over a period of time. Of interest to housing managers are the building methods used, pace of consolidation, and cost of improvements and the extent to which such costs are affecting family expenditures on food and other basic needs. Most important of all, there is considerable interest in the factors that influence the manner and extent of consolidation.

The evaluation studies supported by IDRC and the World Bank showed that community-upgrading projects followed a different process of housing consolidation than that followed by sites-and-services projects. This might be seen by a quick review of the Tondo project and the El Salvador projects.

In Tondo, the "reblocking" of the existing community meant that 71.8% of the houses suffered some form of dislocation. In the case of about 43.6% of the dwellings, this meant moving the structure in its entirety to another site; about 7.7% of the houses were shifted and realigned; another 20.5% did not have to moved, although some portions were "sliced off" to make them fit onto smaller lots; and about 28.2% of the houses were not touched at all. However, a considerable number of families decided to make improvements to their houses, perhaps inspired by the general improvements within the community.

Three months after the start of the reblocking process, a study of housing consolidation was conducted. Some of the research findings were as follows:

(1) Most Tondo houses were expanded. The proportion of houses with a roofed area of only 11–30 m^2 decreased from 47.5 to 30.0%, whereas those with a roofed area of 31–50 m^2 increased from 30 to 42.5%.

(2) Many houses expanded upward, i.e., the proportion of two-storey houses increased from 45 to 60%.

(3) The quality of building materials used improved. The proportion of houses using dilapidated or salvaged materials decreased from 25 to 2.5%, whereas those using strong materials increased from 22.5 to 40.0%.

(4) Sanitation improved. The proportion of houses with water-sealed toilets rose from 30 to 52.5%.

(5) Families increased their investments in housing. On the average, families spent P6245 for housing improvements, with about P4826 going for new building materials.

The pace of housing consolidation in the sites-and-services projects in El Salvador was considerably slower than in Tondo. This is probably due to the fact that a family dwelling existed in Tondo at the start of the project, whereas an entirely new house had to be built in El Salvador. In El Salvador, also, a lot of time was spent on mutual-aid work devoted to such tasks as excavation of the housing foundation (13 weekends), laying a concrete foundation (15 weekends), putting up walls (28 weekends), etc. The time was spent not only on actual work but also for training, discussions, and meetings.

Two years after the start of the project, the evaluation study showed that the average family had constructed a livable roofed area of 35–40 m^2. Families started moving in when an area of about 30 m^2 was finished. Beyond the 40 m^2-sized dwelling, further housing improvements seem to be devoted mainly to aesthetic and decorative changes, suggesting the adequacy of the structure.

Because of the sanitary core units used, the level of sanitation in El Salvador was much higher than in Tondo (all of the dwellings in El Salvador had waterborne toilets). The use of mutual aid and self-help, although required in the project, was almost the same as in Tondo, where it was not required. Both the Tondo and El Salvador projects relied on the use of strong materials, although there was a tendency in El Salvador to use strong materials almost exclusively. In Tondo, in fact, the building materials stores only sold light materials such as timber and particle-board panels, whereas the Salvadorean materials stores sold mainly hollow blocks, cement, and galvanized iron sheets.

Because of the longer period of housing consolidation, the fact that families had to move from existing slum/squatter areas to the new sites, and due to job dislocations, the costs to families participating in the El Salvador projects were higher. The actual direct family investment averaged C2821, but other hidden costs were inevitable. For example, families started paying for the new houses as soon as the targeted completion dates were set but they could not move into the new houses due to construction delays. This meant that they were paying rent for their old houses as well as paying amortization costs.

Factors Influencing Consolidation

The Tondo and El Salvador projects show that quite remarkable changes can occur in a project after it is started. In analyzing the housing consolidation process, it is important to identify the various factors responsible for the pace, costs, scope, and direction of the process. Based on a careful study of basic housing experience so far, the following factors seem to be the most important influences on housing consolidation: security of tenure; condition of the dwelling at the start of the program; value of the existing structure; family income levels; housing design; infrastructure and support services; building materials used; and extent to which contractors, hired labour, mutual aid, or self-help are used.

Security of Tenure

The earliest and still the best observations on the relationship between security of tenure and housing consolidation were those made by Turner, based on his work in the *barriadas* of Peru (Turner 1966, 1967). Turner's main hypothesis was that if people were assured security of tenure, they would voluntarily improve their dwellings to the fullest extent that they were capable of. However, if people felt insecure, they would refrain from making home improvements even if they had the means. Investing in a dwelling when it could be demolished at any time didn't make sense.

Observations on urban development efforts all over the world have confirmed Turner's hypothesis. An important policy concern, therefore, is

what can be done to assure tenure. Among the options that have been used to date are: outright sale of land and/or dwellings, long-term leases, and leasing with the option to purchase. In some countries, experiments with condominium ownership and cooperative housing have been tried but it is still too early to tell if these approaches will work.

Outright Sale

Concepts of property rights vary from country to country but, in general, freehold tenure seems to be the most favourable and sought-after status among project participants. Enthusiasm for freehold status, however, is rarely shared by project managers. There seems to be a widespread feeling among housing authorities that giving freehold tenure through outright sale diminishes the right of the authority to direct and influence the use of land. If a road in a project has to be lengthened or widened and land has to be acquired, obtaining the land from freehold owners would involve high costs, lengthy negotiations, complicated litigations, and expensive delays. In anticipation of these problems, authorities would rather not sell land outright, preferring more flexible tenure arrangements.

On the part of project participants, however, freehold tenure through purchase is the best status one can hope for. Suspicion of the motives of housing authorities is acute among former squatters and slum dwellers. In most instances, this may be traced to a "learning experience" involving eviction threats and counterthreats, exchange of slum votes for tenure status, court cases and administrative hearings, demonstrations, and even riots. A favourite slogan among Tondo squatters was "let those who have less in life have more in law," and they pressed for laws assuring them security of tenure.

Once security of tenure was assured by the sale of the land to bona fide residents of Tondo, the pace of housing consolidation accelerated rapidly. In 3 months, housing improvements exceeded what had been accomplished in the past 20 years. Although this accelerated consolidation might be attributed to other factors, such as better infrastructures, building materials loans, etc., to most Tondo residents it was the legitimization of their land claims through the outright sale of land that was the most important factor behind the phenomenon.

Long-Term Leases

Many project authorities claim that a long-term lease, e.g., for a period of 50 years, is ample security to encourage a family to improve its dwelling. The lease, in turn, provides the authority with enough powers to control and regulate land uses as well as to quickly acquire land for new and unanticipated needs.

A frequent concern of housing managers is the tendency of project allocatees to sell their "rights" to the house and lot even before they are legally entitled to do so. A leasing arrangement specifically prohibiting this practice enables the authority to act more effectively. Prohibition of a trade in rights is most important in making sure that basic housing projects actually benefit the target groups they are supposed to serve. Experience has shown that when selling of rights is not controlled, higher income families eventually end up owning plots in the project.

One problem with long-term leases, however, is that they tend to be complicated. Leasing as a concept has many legal implications, usually contained in complicated clauses about issues such as succession (who owns the property when the lessee dies), specific violations, penalties for violations, etc. Difficulties in interpreting the provisions of the lease add to the sense of insecurity. A land title, at least, is easy to comprehend. A lease that requires the services of a lawyer to interpret is not quite the same.

Most low-income families perceive basic housing projects as important for improving not only their conditions but also the future for their children. A lease agreement that postpones determination of tenure status, thus leading to an insecure future, is not a good legacy to leave one's children. The insecurities generated by poverty stress immediate gratification and resolution of outstanding issues as soon as possible. This partly explains some of the difficulties with leases in basic housing projects.

Leasing with a Purchasing Option

A possible balance between the security of freehold status and the flexibility of leasing involves allowing project participants to lease plots up to a certain time, after which they have the right to buy the property outright. Arrangements can be made so that amortizations under the lease can be applied to the purchase price at the end of the period. In the sites-and-services portion of the Tondo project, for example, leases were possible for a period of 25 years. After that time, plot allocatees have the right to buy outright.

Leasing within the specified period gives the housing authority the power to influence project development and to control planned growth during the most important stages in the project. It is assumed that the bulk of development problems would be encountered during the early stages of the project and it is precisely at that time that leasing would enable the housing authority to exercise controls. Toward the end of the leasing period, the community would have stabilized enough to warrant freehold status for project participants.

The promised outright sale at the end of the leasing period might be sufficient to give participants enough security to encourage further housing consolidation. Security might be enhanced further if the lease agreement is made flexible enough to allow for earlier purchase by participants if they acquire adequate resources before the lease expires.

Initial Condition of Dwelling

The initial condition of the dwelling will be an important determinant of how much housing consolidation will occur. If a house in an upgrading project is adequate enough to meet the basic needs of the family, relatively little consolidation might take place. On the other hand, a dilapidated house would require considerably more construction to bring it to an acceptable level.

As indicated previously, sites-and-services projects may start out with only a serviced site or they may provide a semifinished dwelling. The Dagat-Dagatan project in Manila offered participants various options, each option featuring varying levels of core housing. Each option also included a specific size of plot as well as a corresponding lease or purchase price.

The type of core unit provided is intended not only to influence housing consolidation but is also an effort to respond to a participant's capacity to pay (more options cost more money). It seeks to influence a participant's choice of building materials (a plots-only option allows for maximum use of a wide variety of materials). It also firms up a participant's use of space in that the location of the basic core would dictate where the kitchen and bathroom would be located.

An indication of the influence of core units on housing consolidation is shown in the Dandora project in Nairobi, Kenya. In that project, two basic options were provided. Type A plots had only a toilet, water connection, and party wall, whereas type B plots had all of these features plus an enclosed room. Because type A plots had only a rudimentary level of servicing, they could be offered at a cheaper price. However, type A plots required greater investments in new construction because an enclosed room was considered a necessity before families could move to the plot. Type B plots could be occupied almost immediately because the finished room served as a temporary shelter as well as a relatively safe storage place for building materials.

Observations of the rates of plot occupation, as well as house construction, revealed that the two were closely related. Type B plots were occupied rapidly and building activity on these plots also occurred quickly. The amount of construction of more permanent dwellings was also higher in type B plots. All of these accelerated activities seemed related to the fact that the initial dwelling unit was ready to accept the family from the very beginning (Fig. 2).

An interesting element of housing consolidation in Dandora was the use of temporary shelters. Most families allocated plots in the project lived near downtown Nairobi and found it too difficult and expensive to commute daily to build houses. The obvious solution to this problem was to build temporary shelters. Most temporary shelters built were made of sticks, straw, mud, and discarded materials such as plastic sheets, cardboard, old lumber, and even animal skins. They were built in the traditional way still used in rural areas of Kenya.

The temporary shelters posed a problem to housing administrators from the very start. They were "unsightly, unsanitary, unauthorized, and unfit for modern habitation," according to one report. Housing authorities tried to demolish some of the temporary shelters but were met by a storm of protests from the participants. Families argued that they wasted too much time commuting and the temporary shelters enabled them to live on the site. They could work as early as they wished or as late as they wanted, thus accomplishing more. They could guard the building materials more closely on the site (theft of building materials was common in the project). Most important of all, families had invested sums of money in building the temporary shelters and demolition would waste these investments.

After much debate, the housing authority allowed the use of temporary shelters provided that they would be removed within 18 months after construction (this was the time period allowed for completing the permanent dwelling to an "acceptable standard"). Acceptance of the temporary shelters accelerated the consolidation of houses in type B plots. In fact, as seen in Fig. 2, even allocatees of type B plots built temporary shelters. These accommodated members of the extended family, who

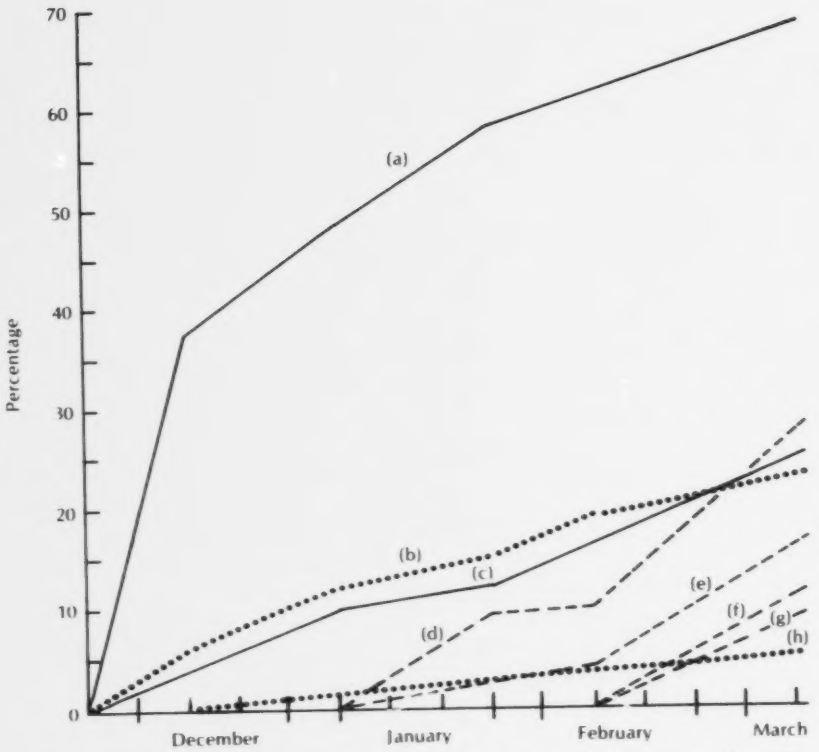


Fig. 2. Rates of type A plot and type B plot occupation and consolidation, December 1976 – March 1977. (a) Occupation, type B plot; (b) temporary shelter, type A plot; (c) occupation, type A plot; (d) building activity, type B plot; (e) building activity, type A plot; (f) house construction, type B plot; (g) house construction, type A plot; (h) temporary shelter, type B plot.

helped in house construction, or served as storage places for building materials, furniture, and household belongings.

A problem frequently faced by housing authorities offering core houses is that people sometimes have a different plan for their dwelling and these plans do not conform with the core initially provided. They may knock down the core houses, which can be expensive, and start from scratch. In a sites-and-services project in Jamaica, for example, project designers built sanitary cores at one end of the lot and set up party walls at the other end. People objected to this because they had to build quite a lot to connect the wall and the sanitary core. Many families, therefore, ignored the wall and built around the sanitary core. Others placed a walled lean-to around the sanitary core and built a detached house around the wall. In either case, people spent more than was actually necessary due to their inability to use both project components right away. The design also delayed housing consolidation considerably.

Because of problems encountered with core housing similar to those mentioned above, some housing authorities have favoured the use of serviced plots alone. This approach has the advantage of lower initial costs

to project participants. It also gives participants maximum flexibility in designing and building a house. Lower costs and flexibility are maximized, for example, when participants are allowed to bring used materials, salvaged from original shanties, to the new site. In a number of projects in the Philippines, Zambia, and Jamaica, this was permitted.

Although the approach was welcomed by some participants, it was not popular with politicians who objected that the "new" housing project looked too much like the original slum it was supposed to replace. There was even a case where residents of an existing community protested against a sites-and-services project because the makeshift houses being built there were lowering property values and they were afraid that the unsightly houses in the new project would give their community a bad image. There was also the case of a high ranking housing official who ordered that the shanties built by people in a new project were "unfit for human habitation" and should, therefore, be replaced by new units. The higher costs of the new units did improve the project's appearance but they were now priced beyond the paying capacity of the original allocatees, who were eventually eased out of the project. Increased project costs also meant that only a limited number of families were actually helped in the project because fewer units were built. Those helped were, of course, the very families who could have obtained housing on the open market.

Value of Existing Houses

In the past, the main issue in urban renewal was whether existing houses should be torn down and replaced or whether it was better to improve them. Most housing authorities now favour improvement and discourage destruction of existing stock.

The most potent argument for keeping and improving existing housing is the finding that it represents a considerable sum invested by low-income families. For example, in a study of the value of squatter houses in Tondo, it was found that the average house represented a value about 90% greater than the average per capita income of the typical household (Jimenez 1982b). The study sought to determine the value of dwellings by two methods: (1) asking the owners how much they thought they could sell their houses for and (2) asking a professional appraiser to value the dwellings, considering such aspects as the size of the house, its age, building materials used, availability of services, etc.

Among 96 houses studied, the average value of the house according to owners' estimates was US$1886, whereas the average value arrived at by the appraiser was US$1879. Because the average annual family income in Tondo at the time of the survey was US$982, it was obvious that the houses constituted a valuable asset for most families.

In some instances, housing authorities have objected to keeping existing houses and improving them because of the age of such dwellings. An interesting aspect of the study by Jimenez was the fact that the value of squatter houses tended to increase with age. This was due to housing consolidation, which revealed that homeowners tended to improve their houses as they grew older. The older the dwelling, it was found, the greater the likelihood that it would have services such as piped water, flush toilets, and electricity. The use of strong and modern materials

also increased with the age of the house. Finally, in a place like Tondo, where periodic eradication campaigns have been launched in the past, older houses proved that they had greater "staying power." They had more secure tenure because they were located in areas not needed by the government, or they were occupied by individuals with greater political "pull." Older houses also tended to be stronger. If they had withstood earthquakes, typhoons, and other calamities, they were more likely to be solid houses.

The significant sums invested by families in existing housing can become a problem in community upgrading. During the reblocking process in Tondo, it was found that it was a lot easier to move smaller houses made of timber and makeshift materials. When a house made of concrete or hollow blocks is moved, it usually means that very little of the original building materials can be saved and reused. Thus, in an effort to rationalize the layout of houses in the community, a large number of existing structures had to be destroyed.

In Zambia, a different sort of problem was encountered with regard to existing houses. There, families relocated from existing sites were required to destroy their old houses so that they would not be reoccupied by encroachers. The goal was to reduce the densities in existing communities and not removing the old houses would have defeated the project's purpose. This approach, however, required very rapid housing consolidation in the new site so that the resettled families could be accommodated there. Project beneficiaries, therefore, were put under double strain due to the loss of their old dwellings, which represented quite an investment, and increased expenses to build the new shelter rapidly. Although project assistance and building materials loans helped somewhat, this double strain created considerable difficulties among a few families.

Family Income

Income is one of the key elements in project selection criteria. All things being equal, selecting families with adequate income should accelerate the pace of housing consolidation because they would be capable of buying building materials and hiring skilled workers more readily. An important goal in basic housing projects, however, is to make them accessible to lower income groups. Thus, a trade-off has to be found between selection of higher income groups and the problems of slower rates of housing consolidation.

One problem in almost all of the basic housing projects evaluated has been the inflationary rise in the cost of building materials and labour. In Senegal, for example, the construction cost index rose from an annual average of 180.9 in January 1975 to 251.9 in December 1979. Over a period of 4 years (January 1976 – January 1980), the price of a ton of cement in Dakar more than tripled, i.e., CFAF6773–24 000.

Spiraling costs have necessitated adjustments in income qualifications for Senegalese projects. In 1972, the minimum family income for project participants was CFAF14 500 on the average. At that time, families with this income were located between the 15th and 50th percentiles of the Dakar population. Because of rising project costs, income qualifications were raised to CFAF15 000-45 000 in June 1974. This was raised again in 1976 to

CFAF18 500-55 000 per month. In January 1977, the minimum income for project qualification was CFAF15 000 (OHLM 1980).

Despite the upward adjustments, the rate of housing consolidation in the Dakar project was the slowest among the projects studied by IDRC and World Bank teams. Although the project began in 1972, only four families had built houses on the site by February 1978. It wasn't until the Office des Habitations à Loyer Modéré (OHLM) increased housing loans from CFAF275 000–415 000 that housing consolidation and movement to the site accelerated. After long delays, consolidation seems to be picking up in the Dakar project. As of 1979, about 1100 families had built their houses and moved to the site. By July 1980, OHLM reported that the number of people actually on site had more than tripled.

More intensive studies have shown that housing consolidation in the Dakar project was primarily funded from building materials loans. Personal savings, according to the studies, were sufficient to finance the full cost of construction only in 8% of the cases. Bank loans and loans from employers were negligible sources of funds for housing construction. The study showed that, in general, the monthly budget of families was about 20% less than their actual expenses. Because most families were already spending about 65% of their income for food, increased expenditures for housing construction would have meant cutting back on this basic item.

A similar income and expenditure study in Tondo revealed that the strains caused by housing consolidation are not spread evenly but occur mainly during the "period of maximum stress," which coincided with the 3-month period when families had to move to the new project site and build their homes. The Tondo study showed that, on the average, families spent about 8.6% more than they earned during this period. The main reason for the overexpenditure was housing construction, which took about 67.3% of total income (NHA 1978d).

The most difficult period for families, according to the Tondo study, was the month after the move, when they were spending about 36.9% more than their income. At that time, the proportion of income spent on food plummeted to about 25.1%, compared with an average of 34.4% over a 10-month period. This strain on family income was occurring despite sizable gifts, donations, and transfer payments from relatives and friends. The study revealed that too rapid a rate of housing consolidation created severe dislocations in family finances.

Housing Design

A common fault in basic housing projects is the use of overdesigned dwellings under the mistaken notion that solid beautiful houses are the solution to the housing problem. Even with ample research evidence that affordability is the main issue in basic housing, there are still many housing officials who measure their success in terms of how many finished houses they are able to add to "housing starts."

In Senegal, one of the main reasons for the very slow rate of housing consolidation was the expensive design suggested for project dwellings. To illustrate to prospective participants the types of houses that would be built in the project, the housing agency, in 1975, designed finished dwellings that would cost from CFAF750 000–3 million. A 1976 survey of prospective participants revealed that no less than 40% of these had lived

in a house made of permanent materials before and that "they could not countenance living in a shanty" (OHLM 1980). To cater to these families, the housing agency felt that only a solid house of permanent materials would suffice. This feeling was no different from that of a housing developer building a beautiful model house to show prospective house buyers what they can expect.

The housing authority succeeded in convincing people to follow the design of the model houses. As of August 1978, 98% of the households that started construction in the project followed the model designs. In fact, the designers succeeded too well. In general, the more expensive "standard plans" costing from CFAF1.5–3 million were favoured.

Another cause of difficulties was the tendency for families to attempt to finish the whole house in a single phase. This meant that construction was given to contractors with mutual aid and self-help playing negligible roles. The problem, however, was that families generally had low incomes relative to their preferred housing designs. This meant that the bulk of construction costs had to come from loans, which were raised from CFAF275 000–415 000 before accelerated construction took place.

In August 1978, an evaluation of the project revealed the main problems related to housing design and costs (OHLM 1980):

> This desire to put up OHLM "standard units" in a single phase, the rise in the cost of building materials and the cost of labor in relation to the low individual savings and the scarcity of construction loans explained the slow pace of construction of houses on the site.
>
> As a result, work on many of the houses was held up from time to time while the purchasers waited to accumulate the necessary funds. . . almost three-quarters of the purchasers who had not been able to start construction of their dwellings indicated a lack of money as the reason.

The 1978 evaluation convinced project designers that, if housing consolidation was to improve in the project, they had to come up with a more pragmatic approach. Shortly thereafter, the designers suggested that a "basic housing unit with a maximum of two rooms" should be the initial target of families building a house. The goal was to have an acceptable livable unit built on the site first, so that the family would be able to move to the project. It was hoped that after the family occupied the basic house, further housing consolidation would occur. This is what is currently happening in the Dakar project.

Lest all the blame is heaped on project designers, it must be noted that, left to their own devices, families in a project have a strong tendency to opt for solid houses made of permanent materials. In Tondo, for example, the reblocking process triggered a construction boom that drastically changed the physical features of the community. Between the start of reblocking in 1978 and the evaluation conducted in 1979, it was found that 29.5% of the one-storey houses in Tondo had been transformed into two-storey dwellings. In 1978, about 17.3% of the houses in the reblocked area had makeshift salvaged materials but the proportion of such shanties in 1979 was only 6.9%.

Aware of this tendency to overcommit their resources, the National Housing Authority tried to influence families in Tondo to use light or mixed rather than strong materials. The building materials loans program was managed in such a way that borrowers could draw only lumber,

On-site improvement was found to be an effective approach to upgrading slums — improved houses are built to replace old shanties in Tondo, Manila, Philippines.

galvanized iron sheets, plywood, and particle board from the project stores. People who wanted to use cement, hollow blocks, or steel rods had to obtain these from the open market. This policy succeeded in limiting the use of strong materials and favoured the use of light and mixed materials. In 1978, most Tondo dwellings were made of light materials, whereas in 1979, 50.3% were made of light materials mixed with salvaged materials. The proportion of houses made of mixed (light and strong) materials went up from 27.2% in 1978 to 34.5% in 1979 (NHA 1980a,b).

In general, therefore, the desires of project participants and the professional pride of housing designers combine to influence basic housing projects to design and build larger houses made of permanent and strong materials. The impact of this tendency on housing consolidation is deleterious to the attainment of project goals. The high costs of houses and low incomes of project participants inhibit families from moving to project sites early. This, in turn, deters housing consolidation. Ambitiously designed houses may force families to award construction to contractors rather than working on the houses themselves. The added costs of this approach serve to delay construction further. Finally, when expensive houses eventually prove to be beyond the capacity to pay of project participants, they may drop out of the project. This changes the target group served by the project and takes it out of basic housing programs altogether.

Infrastructure and Support Services

In a well-designed project, construction of infrastructure and support services is phased in such a way that these important elements are made available at about the time project participants selected for the project are ready to move to the site and start construction. In El Salvador, for example, the formation of mutual-aid groups is timed with the availability of basic infrastructures and services in the project area. This desirable phasing of

project activities does not always happen, however. The affect on housing consolidation in such instances is negative.

One of the most important services required for housing consolidation is water. Drinking water is needed not only for the people, but it is also a necessary factor in construction, especially when cement and mortar are involved. Proper sanitation is also important because improper disposal of human waste poses a great health hazard. It also gives the project a very bad image.

Although most housing consolidation in basic housing projects does not require power tools, electricity is a necessary service because of the need for security. Theft of building materials is common in most projects, especially those located in newly opened areas left uninhabited at night. In the Senegal project, for example, project managers noticed that most people were spending large amounts to fence and enclose their lots with high walls. About 19% of plot allocatees in a 1980 survey said that they had not moved to the project site yet because they had not finished the enclosure. They felt the enclosure was necessary to safeguard not only themselves but also the expensive building materials they had brought to the site. With improved street lighting, the people said security would be much better and they would not feel so pressured to build lot enclosures first.

In the same survey, Senegalese project participants were asked why they had not moved to the project when they had finished constructing a "basic two-room unit" that was accepted by project designers as being a livable structure. The respondents gave the following reasons: no sanitary facilities on the site, 42%; enclosures around the house not finished, 21%; no police station, market, or community toilets, 16%; and other reasons, 21%. From the pattern of answers, it was obvious that the lack of infrastructure and basic services was responsible for the delayed movement to the project site.

Building Materials

The building materials used in a project have a direct affect on housing consolidation because of cost considerations, the availability or scarcity of the materials, the skills needed to work with the materials, and the people's attribution of status or prestige to certain types of materials. In early sites-and-services projects, such as in Senegal, there was a strong tendency on the part of project designers and the people to choose strong and permanent materials. In later projects, however, there has been a tendency to favour light or mixed materials, but this has not always met with success.

In Zambia, initial house designs assumed that people would use sun-dried bricks and soil-cement blocks. The main consideration in this choice was cost. It was estimated in June 1973 that it would be possible to build a three-room house with a floor area of 24 m^2 for the sum of K241 if sun-dried bricks were used. To build the same house with commercial hollow blocks and steel reinforcement rods would have doubled the cost.

Efforts to get people to use sun-dried bricks and soil-cement blocks, however, met with serious difficulties. The quality of the bricks and blocks produced was rather poor because of poor soil analysis, faulty equipment, or improper procedures. In a semi-rural project in which bricks and soil blocks were used successfully, this was achieved by heavy inputs of foreign

technical assistance from the American Friends Service Committee and the Cooperative for American Relief Everywhere (CARE). It was estimated that if the cost of such technical assistance was added to total project costs, the project would have been as expensive as one using cement and hollow blocks.

Project authorities realized that, contrary to expectations, it took longer to build with bricks and soil cement than when hollow blocks were used — people had to gather the soil, water, and other ingredients; they had to wait for the machines; and the bricks had to dry in the sun for some time. In the case of hollow blocks, they were readily available from commercial outlets and from the project materials stores. Although they cost more, they could be used right away. There were also many masons and other skilled labourers who could be hired to build with cement and hollow blocks. There was a trade-off, therefore, between the initial cost of hollow blocks and the costs of delays, self-help, and other difficulties involved with building with bricks and soil cement.

In the long run, it was the people's preference for hollow blocks that influenced project decisions and the pace of housing consolidation. Surveys in 1979/1980 in two project sites in Lusaka found that 89.5% of families in the first site and 92.5% in the second chose to use hollow blocks for their houses. The reasons were aesthetic, economic, and related to considerations of status and prestige. A bungalow with cement hollow-block walls, a galvanized iron roof, and a timber frame was a "solid modern house." A house made of sun-dried bricks, soil cement, or wattle and daub was a "poor man's house," no different from the original dwellings in the slum/squatter areas that the people came from. An important economic reason also influenced the choice of building materials. A survey found that the average rent for a hollow block house in 1978 was about K10–11/month, compared with a rental of K5–7/month for a house made of sun-dried brick or soil cement. Because renting a portion of the house is an important source of income for Lusaka families, building with hollow blocks was a wise economic decision from the homeowner's perspective.

The housing agency's desire to accelerate housing consolidation also tipped the balance in favour of hollow blocks rather than bricks or soil cement. The housing project unit had a rule that a family moving from an upgrading site to an overspill area must demolish the original house as soon as possible, before it was occupied by other families or encroachers. This meant that a new shelter had to be prepared on the new site as soon as possible. In view of the delays involved with using brick or soil cement, many families found that the only way they could build the new shelter quickly was to use modern materials and hired labour for the job.

Hired Labour, Mutual Aid, and Self-Help

As indicated earlier, most project participants in Zambia and Senegal preferred to use hired labour in housing construction, whereas mutual aid and self-help were used more in El Salvador and the Philippines. In general, the pace of housing consolidation was faster in projects in which hired labour and contractors were used. Such projects, however, tended to cost more and as a result excluded many low-income families from participating.

Delays in housing construction when mutual aid and self-help are used are related to the need to train project participants in construction skills, organized decision-making, and establishing better working relationships between the people and the housing agencies. Some difficulties were also encountered in the collection and distribution of building materials because self-help projects tend to use a wider variety of building materials than projects dominated by contractors and hired labour.

Where mutual aid and self-help had a definite edge over hired labour was in the matter of cost. Even when the slow pace of housing consolidation is considered and despite the fact that training and organization of mutual aid and self-help also entail considerable administrative costs, projects using contractors and hired labour still remain more expensive. Because this has serious implications on the affordability and accessibility of projects, the benefits from mutual aid and self-help are still worth considering.

Conclusions

The process of housing consolidation exemplifies the problems of transforming a natural process that occurs in slum/squatter areas into a well-ordered administrative program. In the literature on slums and squatter communities, the tendency of families to improve and consolidate their dwellings as their resources and skills improve has been observed. Such a process, however, took time — Turner estimated that in Lima it took 10–15 years to consolidate barriada houses into more or less acceptable dwellings. The task faced by many housing authorities is to condense this process into a couple of years.

Many of the problems encountered in housing consolidation are self-inflicted. Housing managers often prefer modern houses made of strong and permanent materials, want to see the houses finished in the shortest possible time, dictate the use of a limited type of building materials, "tie" building materials loans to materials of their choice, are impatient with mutual aid and self-help approaches, fail to provide basic infrastructures and urban services on time, and generally lack respect for the innate abilities and resources of the low-income families they are supposed to serve. It is no wonder, then, that they encounter so many problems in the execution of housing projects.

Despite these criticisms, there are, at present, a number of innovations and approaches that are being used to improve housing consolidation in basic housing projects. Most of these are critically related to costs. There is some evidence, for example, that mutual aid and self-help lower the costs of housing consolidation despite the fact that they do cause delays. It is also clear that housing designs that allow families to move as quickly as possible to the project site (and this includes allowing the use of temporary shelters) are most effective in enhancing housing consolidation. In Zambia, El Salvador, and the Philippines, as well as in Jamaica and Kenya, the value of constructing a "basic livable unit" that a family can move into right away has been proven.

There is still a lot to be done to evaluate the proper role of various factors in housing consolidation. Specifically, there is a need to understand how technical assistance can be used more effectively to improve and

accelerate construction. This is especially the case with respect to the use of indigenous building materials and construction processes in basic projects. To date, the general tendency is still to rely on modern materials put together in standardized designs in the construction of projects. Projects in Lusaka look too much like projects in El Salvador, which look amazingly similar to projects in Jamaica. One wonders if these similarities are natural and inevitable or are the result of an imposed solution.

BUILDING CODES AND HOUSING STANDARDS

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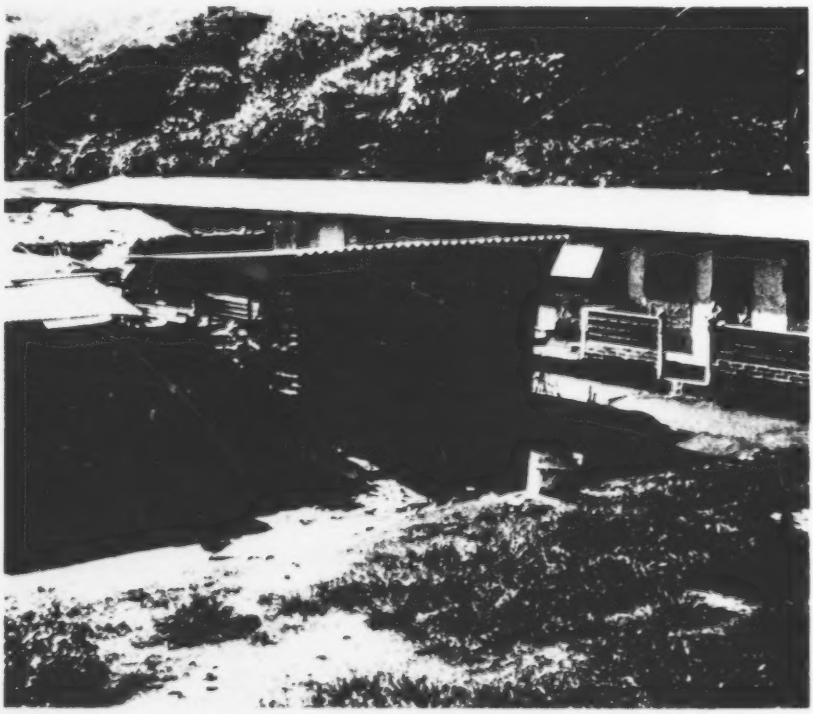


During the early stages of sites-and-services projects, houses may be at various stages of development, San Salvador.

Traditional housing administration is mainly control-oriented and regulatory. The primary instrument by which control is exercised is the building code, which is a compendium of standards designed to cover all possible events and situations. Many administrators defend building codes and housing standards as being necessary for safety, economy, and efficiency. They contend that if people are not told *what* should be built and *how* such things should be built, the result would be anarchy and the rights of people would not be protected.

The concern for safety may be seen in codes that prohibit the use of grass thatch, reeds, or even bamboo in urban houses as these are considered to be fire hazards. It is reflected in careful specifications for the use of stone and other heavy materials in earthquake zones. Fear of epidemics is behind regulations on how many people can live in a house. Fear of contamination of water sources dictates that the leaching field of a septic tank be at least 50 feet (15 m) from a well.

In technologically advanced countries, the institution and enforcement of building codes and housing standards have made great contributions to human welfare. It is hard to imagine how the plague, cholera, influenza, and other epidemics that swept through Europe could have been controlled without the active pursuance of standards. In developing countries, however, there are many who question how useful building codes and housing standards are. These critics accuse standards of inhibiting the efforts of the poor to build houses for themselves. Even worse, when slum and squatter houses are destroyed, codes and standards are instrumental in denying the poor the benefits from what they had already invested their resources in.

Dwellings in slum/squatter areas have made a mockery of building codes and housing standards. They violate practically every regulation in the books. They are fire hazards, people are packed into rooms like sardines, a number of families may share one toilet, or there may be no toilet at all. Housing is built on dangerous ravines, steep hillsides, or even railroad rights-of-way.

In almost all developing countries, efforts to enforce codes and standards have been frustrated by the enormity of the slum/squatter problem. Where offending houses have been torn down, people have merely built somewhere else. Eviction orders have been ignored or contested in the courts. Even when the courts have upheld the legality of building codes and standards, rulings have proven impossible to carry out. As one frustrated Manila administrator said after a court victory against squatters: "How do you throw one million people into jail?"

Frustration with respect to implementing building codes and standards has prompted some people to advocate throwing them away completely. The case against codes and standards revolves around a number of issues. First, it is charged that strict adherence to building codes and standards limits the number of dwellings that can be made available to people. In most developing countries, the poor generally use mutual aid or self-help

in building their own houses. Because of the building materials they use, their low level of skills, and their lack of awareness of existing standards and code provisions, the products of their labour would probably be ruled illegal or substandard.

Strict adherence to codes and standards also makes houses too expensive. This is dictated by the strong and permanent materials advocated, professional quality of construction needed to pass inspection, time delays arising from site supervision and periodic inspections, and ruling that a family cannot move into a dwelling until it is finished to a minimum acceptable standard.

Even efforts to provide basic housing programs to the urban poor can be frustrated by strict adherence to building codes and standards. In 1976/1977, for example, progress in the Dandora sites-and-services project in Nairobi, Kenya, was critically set back by a controversy involving minimum housing standards. The city Health Department ruled that the entire first phase of the project was not conforming with health rules and regulations and could not, therefore, be accepted by the city. This meant that the second phase of the project could not be started because it followed the same design as the first phase.

One of the offending items was a sewer pipe connection that required one plot owner to enter the plot of another to clean the sewer pipe if it became clogged. Project designers had made this design to cut costs. Project management argued that people in the community were cooperative and that an urban community development program trained and mobilized the community to tackle problems like cleaning sewers. In any case, the probability of a sewer pipe getting clogged was remote. It was unfair to hold up a multimillion-dollar project because of some fears that neighbours would not be able to get along well enough to cooperate in cleaning up a sewer pipe in the future.

The controversy dragged on (observers of the case pointed out that the offending sewer pipes were only symbolic of larger conflicts in city government) and it took formal revisions of the city's building code to resolve it. The revisions followed the principle that the city is divided into various zones and each zone allows and restricts certain activities. In an R-1 (first-class residential) zone, only single pipe sewer connections are allowed. In other zones, where "mixed" land uses are tolerated, other types of sewer connections are allowed.

What the Nairobi case points out is that building codes and housing standards do have their uses but only if they are based on existing situations and reflect current realities. The problem with many building codes and standards is that they are typically old and outdated. Turner noted, for example, that the building code of Lima had been instituted in 1915 and minimum housing standards had been incorporated in a revised version in 1935. In many countries, existing codes and standards are handed down from colonial administrators who essentially ruled two cities — the modern European city they lived in and the native quarters they largely ignored. Even as colonizers departed, however, the codes they left behind still dominate decision-making in many countries. The situation in Jamaica, for example, is quite typical (PADCO 1981).

> In Jamaica, each Parish administers its own code. The code for Kingston and St. Andrew does not cover the whole urban area. In format, it

> belongs to the early part of this century. Although certain amendments and additions were made in the 1950's, the document is now truly historic and offers a poor guide to good practice. It relates poorly to the task of checking plan proposals and has proven time consuming to administer.

It is obvious that there is a need in many countries to revise and update existing building codes and housing standards. The issue, however, is what form these codes and standards should take. In too many instances, there is a very strong tendency to follow the approaches used in old codes. Administrators who have gotten used to existing codes sometimes believe that a few changes here and there will solve the problem.

The experience with sites-and-services and community-upgrading projects reveals that, on the whole, an entirely new approach to the formulation and use of building codes and housing standards is needed in most developing countries. In the search for a new approach, a number of issues have to be resolved first. These include: (1) specificity or generality of code provisions; (2) functional versus geographical approaches; (3) legal versus guidance nature of codes; and (4) implementability of codes and standards.

Almost all conventional building codes have specific provisions that have to be followed, coupled with specific penalties for noncompliance. They specify the heights of ceilings, breadth and height of windows, thickness of load-bearing walls, diameter of steel reinforcement bars, etc. The problem with these codes, when applied to the vast variety of housing practices in developing countries, is that it becomes almost impossible to legally specify what is and what is not acceptable. In the particular case of basic housing approaches, in which the capacity of clients to pay is extremely low, too specific approaches would probably limit the options available, which, in turn, raises the cost of allowed options beyond the people's ability to pay.

Recently proposed codes are tending to be more general than specific and are concerned with the proper definition of tasks and the formulation of "performance standards" to be met in the accomplishment of the tasks. The goal is not to set the minimum acceptable thickness, weight, or density of certain materials but to indicate the performance required. This gives designers maximum freedom in choosing materials, construction techniques to be used, and sizes and shapes of structures.

Another trend in the formulation of codes and standards realizes the futility of setting functional limits that would meet all possible eventualities for all time. Greater relativity and flexibility, therefore, are being exercised to take into account cultural, historical, and other considerations. Thus, although it is still common practice to refer to the British or American "code of practice" for approved specifications and standards, many technicians in developing countries are devising specifications of their own.

In Jamaica, for example, it has been proposed that different types of building practices, roughly analogous to the formal and informal sectors of the building construction industry, be embodied in a new code. These include: (1) modern buildings constructed by professional builders; (2) traditional buildings constructed by small contractors and skilled artisans; and (3) makeshift dwellings built by small builders or residents themselves.

It has been proposed that different types of code provisions are needed for each of these types of building. It might also be possible to identify the specific parts of the city where a particular type of building is being constructed and formulate an appropriate zoning or subdivision code for that area. Thus, the new code will encompass the full spectrum of building practices within the country, rather than having a supposedly "universal" code that is largely ignored or openly violated by 40% of the people, i.e., by those people living in makeshift dwellings.

It has been suggested that the legal enforcement portions of building codes and housing standards be clearly separated from the sections that merely seek to guide or instruct builders in appropriate practices. The primary difficulty with existing codes is that they are extremely difficult to enforce. Separating code provisions that have to be legally followed from those that lay out guiding principles clarifies the nature of the enforcement process. Codes that have sections that provide desirable practices (separate from practices that have to be legally followed) have greater flexibility. They can also be used for training and instructing building practitioners, thus taking on a positive rather than a punitive stance.

Areas of Controversy and Concern

In planning and managing basic housing projects, a number of areas have cropped up repeatedly in relation to building codes and housing standards. Among the most common of these have been: size of plots, size and design of dwellings, building materials, sanitation facilities, density standards, and mixed use of land and dwellings. Housing authorities have confronted these issues and solved the problems they entail in various ways. In general, no universally acceptable codes and standards seem to have been found but there is great similarity in both the nature of the problems and the logic of the local solutions.

Size of Plots

There is wide variability in country policies related to the size of project plots. In Tondo, plots ranged from a minimum of 30 m^2 to a maximum of 96 m^2, whereas in Zambia the minimum plot size originally set was 210 m^2 and the maximum was 324 m^2. Plot sizes in El Salvador and Senegal ranged between these two extremes.

In relation to safety, the concern with plot sizes is that small plots tend to favour high densities and overcrowding, which expose people to danger in the event of fire, outbreak of epidemics, natural disasters such as typhoons and earthquakes, and man-made disturbances such as riots or gang wars. In Zambia, large plots were favoured by the people because, for the most part, they used pit latrines for sanitation. A large plot enabled them to build the latrine far enough from the house so that it would not pollute water sources or the air. It also made it possible to move the latrine from place to place within the compound as the pit began to fill or smell.

Safety considerations, however, had to be tempered with other factors. In Tondo, an important issue was how many families could be accommodated in the upgraded area in order that fewer families would have to be dislocated and moved to a sites-and-services project in the overspill area. A related

issue was greater equity in the allocation of plots. Before upgrading, plots occupied by families ranged from 13.7–400 m^2 in size. The project narrowed this range so that after upgrading the plots occupied by families ranged from 33–88 m^2 in size. Present plot allocation is more equitable, as seen from the fact that 77.5% of all families in Tondo now occupy plots ranging from 31–60 m^2 in size. Before upgrading, only 37.5% of families occupied plots within this range.

An important consideration with respect to plot size is cost. In El Salvador, the relatively modest plot size in the Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) projects was dictated by the high cost of land and the fact that this cost had to be passed on to the low-income beneficiaries in the project. In Manila, where a heavy government subsidy made up for the large difference between the market value and selling price of plots, project participants in Tondo still had to pay development costs that were added to the purchase price of plots. The Zambian project designers favoured larger plot sizes because land was "free" in Zambia. However, project managers found that large plots increased development and service costs significantly because longer roads and more sewer pipes, electric wires, and water pipes were needed to reach houses that were far apart from each other.

A unique argument for larger plots in Zambia was based on the need expressed by project beneficiaries to have a garden. A survey carried out in 1976, before the community of George was upgraded, showed that 31.4% of households had gardens. Of these, 11.6% tilled gardens adjacent to their houses and 23.8% had "rainy gardens" quite a distance from their houses.

Having a garden was not only seen as a traditional African practice but was also justified on economic grounds because the corn, sweet potatoes, beans, and other crops grown augmented family meals or were a source of cash. Larger plots (and gardens), however, reduced the project's capability to absorb more people. This was an important consideration in plots close to the city centre, which were in great demand. In George, housing authorities attempted to provide enough space for gardening, but a survey in 1977 revealed that the proportion of households with gardens had decreased to 29.3%. Furthermore, project managers were informed that the high incidence of malaria in the project site was probably due to the planting of corn (the "stagnant" water in the cornstalks was suspected as a breeding place of the dreaded anopheles mosquito). Because corn was a favourite crop, especially in the rainy gardens, a ban on its planting was met with objections from the people.

Larger project plots might also encourage land speculation. Experience has shown that speculation takes place even if project authorities expressly prohibit the sale of plots within a specified period of time or until all payments have been met. This has been the experience in Tondo and in Lusaka, where "rights of occupancy" are clandestinely sold. In view of the fact that basic housing projects are subsidized by the government to make them more accessible to lower income groups, the clandestine sale of plots to families who most likely have higher incomes than the target population lessens the beneficial impacts of such projects.

Project experiences have shown that justification of plot sizes from the point of view of safety constitutes only a partial reason for the regulation of this factor in building codes and housing standards. Regulation of plot

sizes is better justified in terms of a project's capacity to accommodate more people, more equitably allocate a scarce commodity such as land among project participants, prevent land speculation, and reduce project costs. In the final analysis, it is cost that determines a project's affordability and accessibility to low-income groups.

Size and Design of Dwelling

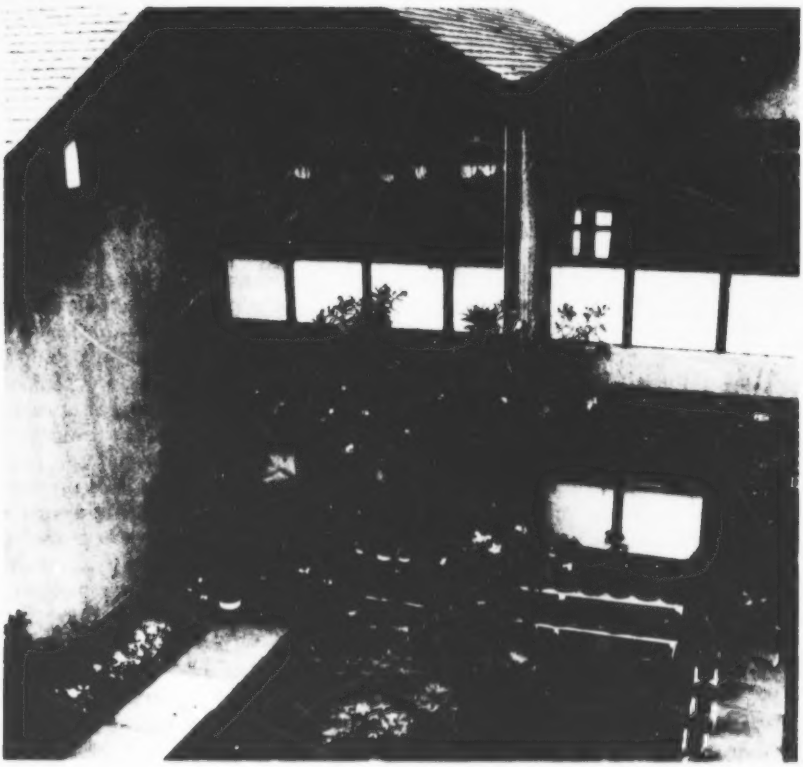
The size and design of a house, like the plot size in basic housing projects, is regulated in building codes and housing standards because of safety considerations. The main concern, again, is density. Too small a house would mean overcrowding, which exposes people to health, physical, and other dangers.

Very few basic housing programs, however, provide finished houses. It is more common for them to provide just a serviced site, sanitary core, sanitary core with one room, or sanitary core with two rooms. The expectation is that project participants will construct and improve the houses themselves, using whatever designs and building materials they choose.

Although housing authorities rarely control the size of houses directly, they exert a strong influence on this factor by the type of "model houses" they present to the people. Technically, such model houses are not binding on project participants. However, as revealed in the Senegal project, where many families built houses according to the standard plans offered by the Office des Habitations à Loyer Modéré (OHLM), there was a strong tendency on the part of the people to conform to the models, believing them to be preferred by the authorities.

The model houses built in basic housing projects so far illustrate the strong preference by housing authorities for relatively high standards in size, style, workmanship, and building materials used in upgrading and sites-and-services efforts. The influence of architects seeking to design the "house beautiful" and engineers wanting to build strong and permanent dwellings (in other words, the standards of "professionals") are depicted by the models. Not surprisingly, the model houses also embody the values of top politicians and administrators who want to build houses they can be proud of, good houses they can defend against the criticism of opposing politicians, and idealized testimonials to what is being done to improve the plight of the "poorest of the poor."

The only problem is that the poor cannot afford this high standard of housing. To add to the problem, high-minded politicians and idealistic reformers are not about to offer subsidies to bring the price of model houses within their reach. The model houses, therefore, become a cruel joke. As they are often presented in their finished state (complete with furniture and interior decoration), they often raise people's expectations and influence poor families to overcommit themselves to ambitious projects they cannot afford. When the families falter in their construction schedules, project codes and building standards regulations are enacted indicating that a basic livable unit should be finished within 18 months or that a family cannot move to the project until an acceptable standard of accommodation is completed. People familiar with middle-class housing developments would readily recognize the code regulations and standards noted above. However, some basic housing managers have tried to enforce them in a sites-and-services project (with little success, of course).



Model home in Dagat-Dagatan (Kapit-bahayan) project, Tondo, Philippines.

A number of housing innovators with a better understanding of the housing needs of the urban poor have recommended that, instead of finished model houses, housing authorities might do better to construct models of units being progressively developed (Fig. 3). Thus, one model might depict a sanitary core with a party wall; another model would have this sanitary core with a partially finished room; a third model would illustrate how a sanitary wall and a finished two-room unit might look, etc. This type of model would not only show the housing standards and designs favoured by housing authorities, but it would also suggest to project participants that it is all right for them to take their time if their skills and resources do not make it possible to finish the dwelling right away.

In a project in the Philippines, supported by the United Nations Environment Programme and the National Housing Authority, several "model houses" were built that illustrated how old and salvaged materials from demolished shanties could be aesthetically and economically used in an upgrading project. In another project in Indonesia, similar model houses were built in the slums to illustrate how some technological innovations such as sanitary modules and water-storage systems could be used. By actually setting up houses and sanitation systems that met minimum standards, the models managed to convey the acceptability of such standards as well as demonstrate that they worked.

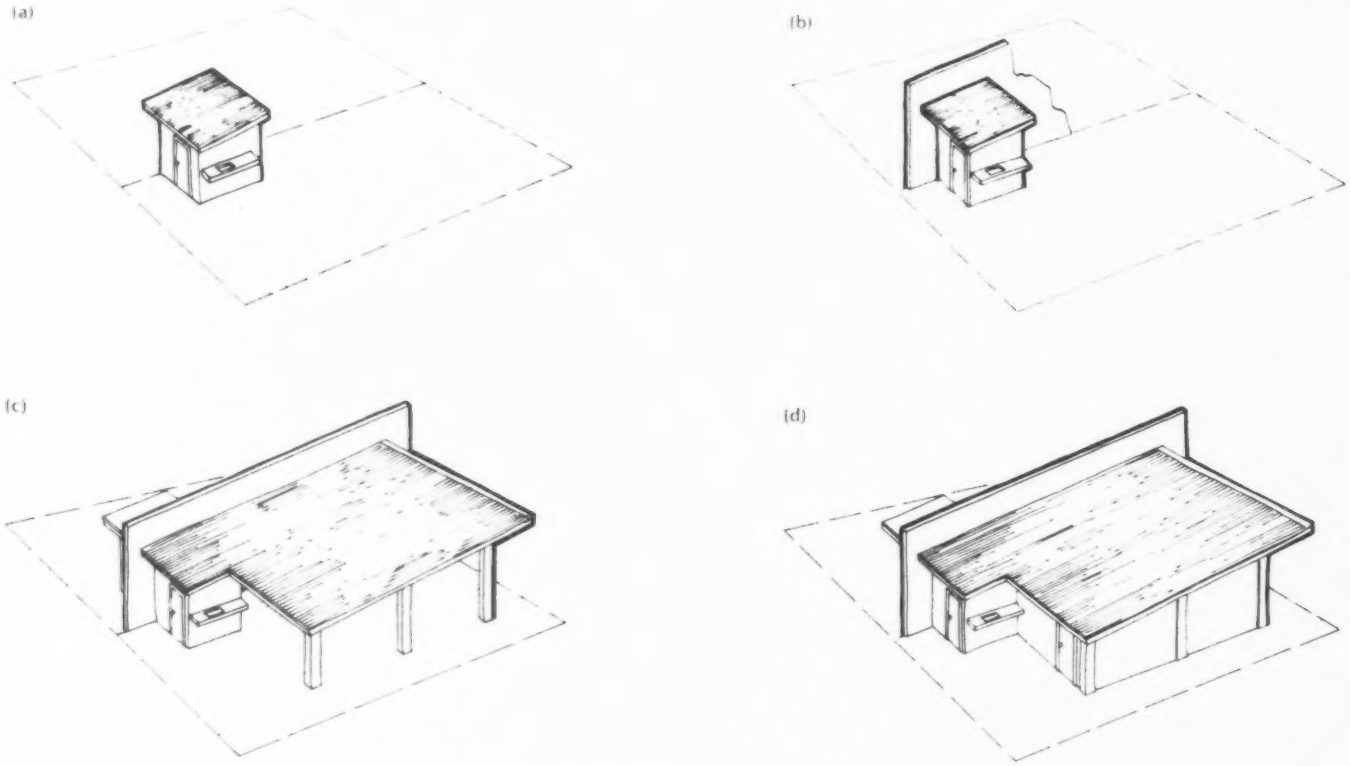


Fig. 3. Basic service options offered by the National Housing Authority in the Tondo sites-and-services project. (a) Sanitary core only. (b) Sanitary core and shared fire wall. (c) Sanitary core, shared fire wall, posts, and roof. (d) Sanitary core, shared fire wall, posts, roof, and siding.

In a number of countries, there have been suggestions that what is probably needed in basic housing projects is a statement of maximum allowable rather than minimum permissible standards. As in the case of plot sizes, putting a maximum limit on the size of a dwelling a project participant can build might improve equity. If very large and expensive houses are not allowed, the right target group might be served by the project because families with high incomes who can afford to build such houses will not be permitted in the project. Participating families, therefore, will be more homogenous, "leakage" in project benefits will not occur, and there might be more peace and harmony among project participants.

Maximum housing standards, however, will be equitable only if they are applied to the larger society rather than to participants in basic housing schemes alone. Imposing a ceiling on what families in basic housing projects can build when the elite of a country can build large, expensive, and luxurious houses will only polarize social classes further. It would be the height of hypocrisy and iniquity to rule that a limit on what the poor can build should be imposed because that is all they can afford. It is tantamount to saying that the poor do not know their own limits, which should, therefore, be set for them by building codes and standards. The rich, however, should be free to do exactly what they like.

Even for the projects themselves, setting maximum standards would probably create artificially homogenous communities for the poor. Studies in existing slum/squatter areas (the "control group" communities in the IDRC – World Bank study, for example) revealed that families in these areas are not "all of a kind," they encompassed a wide range of income levels. The smooth functioning of these communities could be partly traced to this heterogeneity because it allowed individuals and groups to perform all roles: leaders and followers, financiers and borrowers, and buyers and sellers. Much of the petty trading and income-generating activities in the so-called informal sector arise from the fact that people "live off each other" in a most positive way in these communities. An intervention that would artificially impose a limit on the variety of people in a community, therefore, would probably help to sunder the delicate web of human interrelationships that makes community life so vital. In the long run, it would be counterproductive.

Building Materials

Most building codes and housing standards do not allow the construction of dwellings made primarily of renewable materials in urban areas. Safety is the primary reason given why easily combustible materials such as grass, reeds, bamboo, and scrap wood are banned from densely populated cities. Safety in the event of natural and man-made disasters also dominates in building materials standards. Another aspect of safety, i.e., health, also governs the choice of building materials.

Evaluations of basic housing projects show that both housing authorities and project participants have a strong preference for strong and permanent materials. Even when project managers attempted to introduce lighter materials to improve housing affordability in the Philippines (lumber and plywood) and Zambia (sun-dried bricks and soil

cement), people still persisted in using cement, hollow blocks, and steel rods. This suggests that the most important factor in basic housing may not be control and regulation of materials standards but a more accurate estimate of what people can really afford.

If safety, health, and other considerations are to dominate housing standards on building materials, the buildings constructed in basic housing projects would probably be priced beyond the paying capacity of the urban poor. To date, the basic housing projects already set up have rarely reached lower than the 15th percentile of urban income groups. As families who are better off are served by basic housing projects, newer programs will cater to poorer and poorer clientele. Because there is no basis for assuming that governments would be more willing than they are now to subsidize housing for poorer families, the challenge for housing designers is to find less expensive materials and better ways of utilizing them.

Already, house-building practices in slum and squatter areas provide many examples of how affordable building materials can be used in basic housing projects. So far, these practices have been disallowed in housing projects because of strict conformity with building codes and housing standards. In view of the fact that the professionals responsible for the formulation and implementation of codes and standards do not seem to have viable alternatives, perhaps it is time to reconsider existing conditions. It does not make any sense, either, to continue to enforce codes and standards for certain acceptable levels if authorities are not willing or able to subsidize nonconforming families to bring them up to acceptable standards.

The limitations of a single code on minimum housing standards to govern all types of buildings are well known. What usually happens is that the code and standards are applied only to housing in the formal sector. Because building in slum/squatter areas is outside the bounds of the code and standards, they are ignored and not regulated. The scope and magnitude of such buildings, however, cannot be ignored anymore. Many cities and towns in developing countries have reached a stage where building in slum/squatter communities is the most important single activity in housing and the continued pretense that it does not exist will not make it go away; neither does it improve the existing situation.

What is needed, therefore, is the revision of existing codes and housing standards so that they include conditions in slum/squatter areas. This can be done using an areal approach, which allows planning and housing authorities to designate certain areas where the code provisions and standards apply. This should be combined with pragmatic codes of practice and standards that are based on actual situations in slum/squatter areas rather than on some ideal statement of a minimum requirement.

An example of such a code is the "regulations for semi-permanent dwellings built of recovered and renewable materials" that has been proposed for Jamaica. The proposed code is designed to be applied to areas specifically designated in development or zoning plans. This selective approach is already being used in the Philippines, for example, where more than 200 sites in Metropolitan Manila have been identified for improvement in the Zonal Improvement Program.

An important aspect of regulations such as those proposed for Jamaica is that they be based on actual conditions in the areas to be covered. This means that provisions such as the size of a room, dimensions

of a door, ceiling heights, etc., should be derived from empirical checks of existing dwellings. The main reason for the regulations — to help assure safety for people — should be constantly in the minds of those who formulate the regulations. At the same time, the implications of the regulations on the affordability of the housing options should not be lost sight of.

The main advantage of building codes and housing standards that apply even to slum/squatter areas is that they will help to prevent the haphazard and uncontrolled building that occurs when such areas are ignored. The codes and standards can be invoked when authorities regulate what would otherwise be illegal activities in these areas. They could also be used in community-upgrading programs when existing conditions are improved and rationalized. The effect of all this is the "formalization" of activities that originally were in the informal sector.

The biggest challenge to housing authorities, therefore, is assuring that the vitality, creativity, and dynamism that is found in the informal building sector does not get emasculated by the introduction of codes and standards. Authors of codes and standards have to get away from the authoritarian or paternalistic attitude that they have the specific answers to the building problems and that what others have to do is conform. Rather, authors of codes and standards should see themselves as primarily playing a supporting role, making sure that the conditions that release and unlock the energy and vitality of the poor are provided in project areas; for in the final analysis, it would be these factors that would build the proper dwellings. The main issue as far as codes and standards are concerned is not whether they should exist or not, but whether they can assist in the real building process.

Sanitation Standards

In most basic housing projects supported by the World Bank, sanitation accounts for 40–50% of total on-site infrastructure costs and water accounts for 20–30%. Clean water and sewerage systems, therefore, normally make up more than three-quarters of infrastructure costs, leaving relatively little for other services.

Because of the importance attached to sanitation standards, a very wide gap exists between what basic housing projects provide in the way of sanitation and what actual conditions are in slum/squatter areas. Most sites-and-services and upgrading projects rely on waterborne sewerage systems, often with individual sewer pipe connections to every dwelling. Surveys in slum/squatter areas reveal that from one-third to more than one-half of the houses do not usually have toilets.

In some countries, sanitation standards for basic housing projects even exceed those found in the city at large. Thus, the waterborne sewerage system in Tondo is far superior to the Metropolitan Manila system. Only one-third of the whole metro area, in fact, was connected to the central system. The central city system, built in the 1920s, had not been properly maintained and damage that occurred during World War II had not been repaired. Project engineers who designed the Tondo system did not connect it to the main city system for fear that it would not have sufficient capacity. Thus, despite the fact that the main outfall of the city system cuts across Tondo, the Tondo system was linked to an oxidation pond and was maintained independently.

One of the justifications for the expensive high-standard sanitation systems introduced in low-income projects is that such projects do not exist in isolation from the city as a whole and, because germs and epidemics do not respect community boundaries, diseases that start in the slums can spread rapidly. This argument, however, is curiously out of synch with fiscal policies that require full recovery of development costs from basic housing project participants. If, indeed, high sanitation standards are needed in low-income areas for the sake of the whole city, then the costs of attaining these standards should be borne by the whole city, which means a subsidy for the projects.

The question of high costs for waterborne sanitation systems has forced a number of project authorities to use other systems. In projects in Lusaka, Zambia, and Mombasa, Kenya, pit latrines have been accepted by project authorities as meeting minimum standards. Local conditions, such as a relatively dry climate and appropriate water table depths, combine with cultural acceptability of pit latrines to make the system work.

An interesting innovation in Indonesian KIP programs is the MCK, a basic sanitary module composed of a communal toilet, an artesian well, and a water-storage system. Cost considerations and cultural acceptability have made the MCK one of the main improvements in Indonesian *kampungs*. A particularly useful bit of "social engineering" has been the successful effort to organize families in the community to maintain the MCK and keep the toilets clean. In other countries, communal toilets have been unsuccessful because they have not been properly maintained. In Indonesia, people have organized at the neighbourhood level to look after the MCK. One approach has been to assess a "user charge" on every family using the system and to use the money collected to pay a caretaker. Another involves rotation of the task of cleaning and maintenance among members of the organization.

Between the pit latrine and centralized waterborne sewerage systems, smaller septic tank arrangements have been designed in which a number of houses (e.g., 20 in a UNEP–NHA community-upgrading project in the Philippines) are connected to a septic tank. Although the tank still has to be emptied every couple of years, the economies of scale achieved in the project make it superior to the individual septic tank for each house. In Cuba, larger waterborne sewerage systems have been designed, ending up in compartmentalized oxidation ponds. The efficiency of such middle-level systems has been high and some of them have even been linked to aquaculture fisheries and vegetable-raising projects.

The problem of sanitation, however, still awaits breakthroughs either in physical, mechanical, chemical, or human engineering for a solution. Centralized sewerage systems, after all, have changed very little since Greek and Roman times. There have been scientifically interesting experiments on biogas digesters to produce energy, waterless composting toilets, and water and waste recycling systems. These have all been either too complicated or too expensive for basic housing projects. Until effective and inexpensive solutions to attain better sanitation are found, sanitation standards in basic housing will remain a problem area.

Density Standards

Plot size, size of dwellings, number of rooms allowed, and size of rooms are usually governed by specific provisions in building codes to limit human densities in projects. As in most code provisions, density control is justified in terms of safety. Infectious diseases spread faster in densely populated projects. It is more difficult to evacuate people during disasters and calamities. There are even suggestions that lack of privacy, high noise levels, and other concomitants of high densities may tend to increase mental illness and social maladjustments.

The usual standard for density is one person for each habitable room. In basic housing projects, however, density standards may vary. The Dandora project in Nairobi, for example, has a minimum standard of two persons per habitable room. A survey conducted in 1979, however, revealed that 95% of the households in Dandora exceeded this standard. Half of the plots surveyed were occupied by 2 or 3 families. The mean number of persons per occupied plot was 8.4 and 42% of the people interviewed said that they lived in plots with 7–12 residents (MEDIS 5, 1979).

Even though the densities seem high, they are definitely less than densities in existing slum/squatter areas, such as those in Mathare Valley or the Eastleigh *majengos* of Nairobi. The tendency for densities to be reduced after moving to a basic housing project has been noted in almost all countries. In the Tondo project, for example, movement to the sites-and-services project increased the proportion of nuclear families occupying a dwelling. Even the reblocking process, which only involved moving the house to another part of the neighbourhood, reduced the rate of doubling up and the proportion of families renting accommodations.

A difficult issue with respect to implementing density standards is renting. In the Dandora project, the high densities were due to the fact that two-thirds of the plot owners were subletting at least one room at the time of the survey. The mean monthly rent per room was Sh175.50. The survey found that about half of the plot owners renting rooms had increased their income by more than 50%.

The high rates of renting in Dandora are due to the policy adopted by housing authorities that allows subletting because it augments family income. Initially, doubts were expressed about the wisdom of subletting because of density standards. However, the high demand for rental accommodations in the project, coupled with the argument that cost recovery would be enhanced, convinced housing managers to allow and even encourage subletting. As a result, in 1979, a survey found that only 43% of the plots in the project were occupied by original allottees. About 39% were occupied by renters alone. Among the original plot allottees, 79% also had tenants in residence.

To accommodate high densities, project designers in the Dandora project prepared a variety of plot designs that would allow original allottees to construct from three to six rooms on plots ranging from 100–160 m^2. As shown in Fig. 4, the key problem in house design is the location of the "wet core," which is composed of a toilet, shower, store, and kitchen. Communal use of these facilities by families not directly related to each other was a problem. Another problem was the use of kitchens as living rooms, especially during the early stages of housing consolidation.

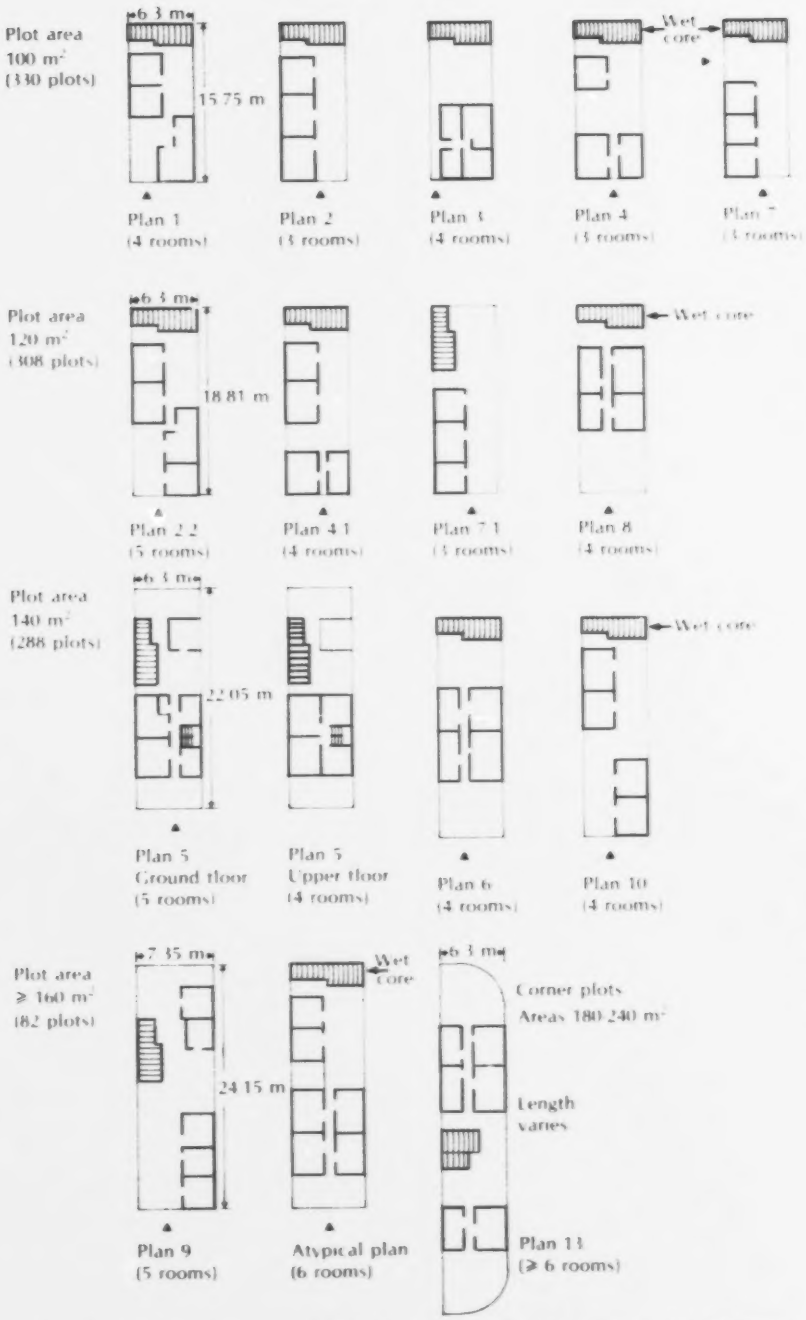


Fig. 4. Plot designs to accommodate higher densities, Dandora project, Nairobi, Kenya

Despite density standards in basic housing projects, therefore, the number of people actually living in such projects is usually very high. Although numbers rarely exceed densities in slum/squatter areas, they are usually higher than the minimum standards set by project designers.

The "violation" of density standards is recognition that there are other considerations in basic housing projects than safety and health. There is a strong need to accommodate as many people in a project as possible to increase their cost effectiveness. There is also a desire to make the infrastructure and basic urban services accessible to the low-income people who do not enjoy these services in their original communities. Finally, the financial rewards from renting (which is a common cause of high densities) are just too strong to resist. Due to the extent that renting enhances cost recovery in projects, it is often tolerated and even encouraged.

Mixed Use of Land and Houses

Another traditional building code provision is that specific places in an urban area should be devoted to only one or two uses. Thus, residential areas should be reserved for peaceful enjoyment of home life. Allowing commerce or industry in such areas would produce safety problems; encourage noise, chemical, or other types of pollution; and lower property values.

This standard of unifunctionalism goes against normal conditions in low-income communities where production, commerce, leisure, community affairs, and home-life activities all happen in the same area and often at the same time. This variety of activities is the source of vitality and dynamism that is so characteristic of low-income communities. Social relationships in the slums are still mainly in the primary group, face-to-face stage. They have not yet become functionally differentiated to formally make up compartmentalized roles or activities.

The complex admixture of activities is seen in the uses for structures and dwellings. In Tondo, for example, about 20% of all structures were devoted to some form of productive or commercial activity. Often, production, sales, consumption, and maintenance are conducted in the same structure. Case studies of income-generating activities revealed that most enterprises in Tondo were family run. They were conducted mainly from the entrepreneur's house, which partly explains the popularity of the two-storey house in Tondo that allows people to use the first floor for productive and commercial activities and the second floor for domestic activities.

One immediate impact of basic housing projects is the disruption of the complex of activities existing in the improved area. This is especially true in sites-and-services projects in which people are moved to another place. Even without building codes and regulations regarding standards, the mere institution of the project disturbs land-use and home-use activities. Producers are moved further away from suppliers and workers. Markets, which had been developed through years of careful estimation of credit worthiness and nurturing of goodwill, are torn apart. Distribution networks are sundered by increased transport costs. In other words, the delicate network of economic and social activities upon which the smooth functioning of the enterprise is based becomes dislocated by the move.

To actually institutionalize this disruption by codes and standards that impose unifunctionalism in the project would be the final blow to produc-

tive project participants. If there is one lesson for planners in the massive literature on slum and squatter community life, it is the finding that housing in these areas is not for home life alone. A house is a production place, marketplace, entertainment centre, financial institution, and, also, a retreat. A low-income community is the same, only more so. Both the home and the community derive their vitality from this multiplicity of users. The imposition of artificial restrictions on both, therefore, would only hinder their growth and development.

Conclusions

The wide difference between existing conditions in slum/squatter areas and the "minimum housing standards" sought by planners and housing designers is more than a reflection of the dualism that exists in most developing countries today. In many ways, it is the result of differing attitudes, values, and "world views" between professional engineers, architects, and planners and the urban poor. Although it is simplistic to label the former middle class and the latter lower class, they are, nevertheless, influenced by different environments and thus see things in different lights.

Frustrations with the use of building codes and housing standards in basic housing projects have prompted proposals to completely abandon such efforts. As experience with the many projects that have been studied reveals, however, the answer may not be the elimination of standards completely but the formulation of more appropriate ones. Many problems have arisen because of the blind borrowing of legislative codes and professional codes of practice from technologically advanced countries. Because most of these codes were devised with different cultural and historical conditions in mind, their imposition on the conditions existing in developing countries naturally created problems.

Fortunately, there are now attempts to formulate codes based on more information and better understanding of actual conditions in low-income communities. Almost three decades of experience in setting up basic housing programs have also generated many lessons with respect to what does and doesn't work. The gulf in world views between professionals and their low-income clients has narrowed, somewhat, to the extent that more realistic codes and standards are now being developed to replace the authoritarian or paternalistic documents of the past.

As the formulation of better codes and standards progresses, one of the most difficult problems that has to be faced is how to strike a balance between the conditions, as they actually exist, and the ideal (hopefully not idealized) conditions of how things can be. Most traditional codes and standards insisted on how things ought to be. Perhaps, this orientation is what has been responsible for most of the problems.

The categorization of low-income communities as being in the informal sector, and building codes and standards as a mark of the formal sector has, perhaps, created an unwarranted polarization in planning efforts. As pragmatic efforts to set up appropriate codes and standards have shown, the actual conditions in developing countries reflect a continuum that ranges from the conditions in slum/squatter areas to the situation that exists in the subdivisions and housing estates of the rich. A body of codes

and standards, therefore, should reflect the full gamut of all of these existing conditions and not try to impose a universal code that applies to all situations.

Almost all building code and housing standard documents at present reflect this philosophy of appropriateness. What has been lacking has been a fuller and better realization of what life really is like in low-income communities in developing countries. In many ways, this better understanding could not be attained by research and professional studies alone. It had to entail the active participation of the urban poor themselves in the development process. As the studies supported by IDRC and the World Bank reveal, this participation has been taking place and basic housing projects are that much better because of it.

INCOME GENERATION AND EMPLOYMENT

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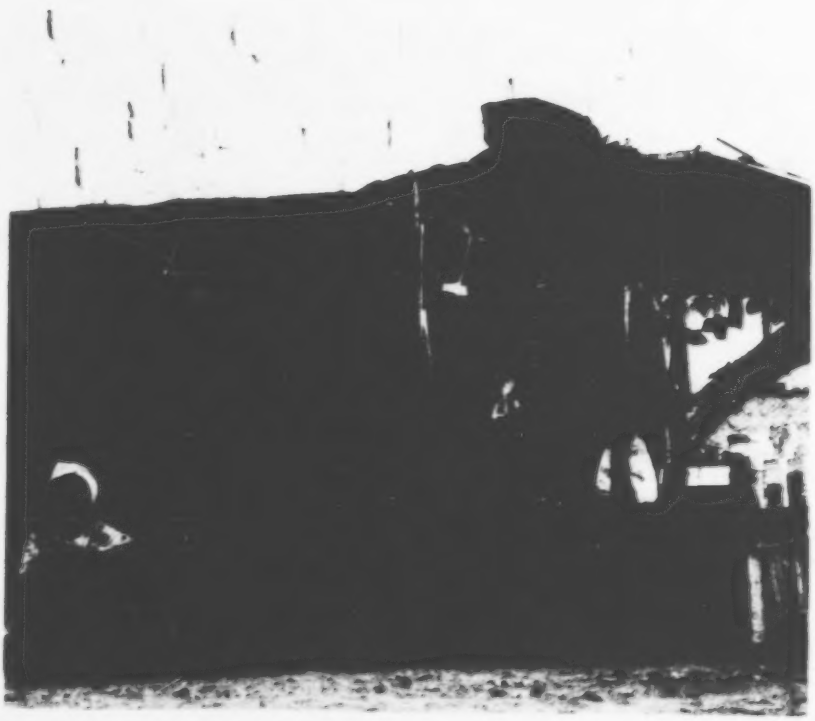


Makeshift store, Dakar, Senegal — if market outlets are not provided, the people will provide them.

One reason for the failure of past sites-and-services projects has been the fact that they were seen mainly as housing projects. People were relocated to sites on the city's periphery, thereby physically tearing them away from their jobs. At the same time, the jobs and income-generating activities promised on the new site did not materialize. Even as families faced higher expenses arising from the move and payments for the project, they were denied the means with which to meet these obligations.

The frustrations that can be created by a sites-and-services project are reflected in a comment from a squatter being moved to a relocation site. The squatter had lived in Tondo for 15 years and was "awarded" a plot in Sapang Palay, 30 km away.

> I guess I should be thankful that I now have a house and lot instead of being a squatter. But what good is a house and lot if I cannot pay for it? They say Sapang Palay is nice but what will I do there, plant camotes? I am a stevedore, my work is here at the piers.

The man interviewed was one of more than 8000 persons moved to the site in 1963. Before the year was out, more than 80% of the people had abandoned the project and filtered back to Metro Manila (Laquian 1966).

As more and more basic housing projects are set up, the importance of providing employment and income-generating opportunities is being recognized. In general, community-upgrading projects have had a better record of employment and income generation because they have not disrupted the relationship between the participant's residence and place of work. Sites-and-services projects, however, have had their share of problems. Project designers have found that it is extremely difficult to duplicate the market conditions that govern employment and income generation in project areas.

A review of various basic housing projects all over the world revealed that the main project components that have been used to create employment and generate income in communities are the following: (1) employment in the project itself; (2) attracting industries and manufacturing enterprises to the project; (3) providing credit and technical assistance to small-scale enterprises; and (4) skills training.

Employment in the Project

Project designers often assume that construction and other activities in a basic housing project will create jobs and improve the income situation of participants. It is anticipated that the people would have the skills needed by the contractors, that the construction technologies used would be able to utilize these skills, and that contractors would be willing to hire people from the area. Aside from jobs provided by contractors, it is usually expected that plot allottees in the project would hire small-scale

contractors, artisans, and tradesmen to help them in building and improving their dwellings. Finally, project participants are expected to use mutual aid and self-help in the construction process. To the extent that mutual aid and self-help utilize idle labour, they can be regarded as providing employment and generating income in a project.

The ability of basic housing projects to create employment (measured in person-months of actual employment) and generate income (valued in colones) is shown in an evaluation of the construction phase in three sites-and-services projects in El Salvador. As seen in Table 2, the greatest contribution to employment and income came from labour hired by participating families during the self-help phase of the project (38.6% of income generated); followed by labour hired by contractors (33.0%); mutual-aid labour (27.6%); and labour hired by cooperatives (0.8%). It was estimated by project analysts that, on the average, the construction of one house in El Salvador generated C1243 (US$497) in income and created 6.4 person-months of employment. For the total project goal of constructing 7000 houses, therefore, the Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) estimated that about C10.4 (US$4.16) million of income and 3700 person-months of employment would be added to the Salvadorean economy (Bamberger et al. 1980).

The Salvadorean projects were successful in generating employment and creating income but in other countries many problems have been encountered that have detracted from the projects' ability to achieve these goals. The most serious of these problems have been those involving large- and medium-scale contractors in charge of constructing infrastructures, core units, and other basic services in project areas. Problems have also

Table 2 Estimated income and employment generated by house construction in FSDVM projects.

	La Periquera Santa Ana	Sensunapan Sonsonate	El Naranjo Usulutan	Average per family
Number of housing units	1190	563	435	
Construction by contractors				
Person-months of employment	1908	1330	420	1.7
Income generated (colones)	478368	307508	112263	410
Labour hired by family				
Person-months of employment	2600	1200	950	2.2
Income generated (colones)	571200	270240	208800	480
Mutual help				
Person-months of employment	2471	1673	1342	2.5
Income generated (colones)	392267	217580	174550	343
Construction cooperative				
Person-months of employment	130	—	—	0.1
Income generated (colones)	20000			9.1
Total				
Person-months of employment	7109	4203	2712	6.5
Income generated (colones)	1461835	795328	495613	1242
Investment required to generate C100 of income (colones)	364	228	300	316
Investment required to generate 1 month of employment (colones)	551	432	554	516

Source: World Bank, 1980. Evaluation of the first El Salvador sites and services project. Urban and Regional Report No. 80-12, 7-20.

been encountered in using hired labour, mutual aid and self-help, and "building groups" or cooperatives. For various reasons, the amount of employment created and income generated through the use of these approaches have proven less than anticipated.

Large- and Medium-Scale Contractors

A common source of jobs in basic housing projects is the construction of infrastructures, basic core units, and urban services by large- or medium-scale contractors. It is not always certain, however, that contractors will hire people from the project area. The number of jobs actually generated will also depend upon whether labour-intensive or capital-intensive methods will be used.

In almost all basic housing projects, contractors are encouraged, if not forced, to hire people from the area. If the housing agency does not insist on this, politicians, labour leaders, and community leaders will. This is certainly the case in Zambia and the Philippines. In Jamaica, where political parties and labour unions are dominant in low-income areas, private contractors cannot hope to work on basic housing projects without employing local people.

According to a ranking member of the Jamaican Master Builders' Association (an organization of large- and medium-scale contractors), costs for a regular housing project funded by the government would probably be as follows: building materials, 50%; labour, 30%; professional costs (engineering design and architecture), 5%; transportation, 4%; physical plant and equipment, 2%; and profits, 9%. In a sites-and-services project in which only core units are provided, building materials could cost less; however, the cost of labour rises proportionately and inefficiency might raise labour costs by more than 50%.

The most important source of inefficiency is the practice of hiring people from the project area. These people are not recruited by the contractors directly. They are recommended by local political party chieftains and union leaders. Because there are always more job applicants than jobs, project managers have devised a way of rotating the workers in 2-week shifts. In this way, each person seeking a job is at least given a chance to earn something.

Because of this system of hiring, a basic housing project in Jamaica that is not plagued by strikes, slowdowns, or work stoppages is rare indeed. Contractors complain that productivity is very low. Workers complain that they are not being paid enough. Because workers owe their jobs more to political leaders and union chieftains, they are often insubordinate. The fact that jobs are rotated every couple of weeks does not motivate labourers to work very hard. Also, the frequent rotations waste whatever training effect is achieved on the job because workers have to stop working just when they are beginning to show some competence in their work.

Saddled with high labour costs, a number of Jamaican contractors have opted for heavily mechanized "building systems" that prefabricate building components for quick assembly on site. Housing factories are set up in which building panels made of prestressed concrete, timber, or aluminum are manufactured. When needed, the components are transported to the site, using heavy equipment. Equally expensive equipment is used to lift

the panels into place. All of these processes minimize the need for labour, with the bulk of costs going toward materials, equipment, and management (including highly trained technicians). Systems building, expensive as it is, solves the problems of large contractors but it does not help unskilled labourers much. In fact, because the panels used are often used as is, with no need for finishing and rendering, systems building also does away with the need for tradesmen and artisans.

In most developing countries, the construction industry is not used to the innovative approaches required by basic housing projects. It is highly profit motivated, which prompts contractors to reduce the price of inputs to the fullest extent possible. This means that creation of jobs and generation of income in a community are secondary items in a contractor's calculations.

Contractors are also product oriented, i.e., they see their outputs in terms of finished units. Progressive development, as already mentioned, is process oriented, i.e., interested more in the manner through which shelter and services are provided. The final product evolves, and it might take a long time to take shape. These differences in point of view are frequent sources of conflicts between contractors and project management. To the extent that contractors choose production technologies and construction techniques to maximize profits and products, they usually adversely affect the employment- and income-generating aspects of projects.

Small Contractors and Hired Workers

Basic housing projects have created more employment and generated higher incomes more successfully through the use of small contractors and hired workers during the house consolidation phase of projects. It has already been noted that in El Salvador the use of hired labour accounted for the most important economic outputs among various approaches, generating income of about C480/family on the average and about 2.2 person-months of employment. In Zambia, a study of three community projects found that they created about 8010 person-months of employment for small contractors and hired labour alone. The total household expenditures for hired labour amounted to K888 421, not a surprising sum when it was revealed that from 85–92% of the households in the project relied on hired labour for construction and house improvement.

In general, small contractors and hired workers did not play a big role in the construction of infrastructures and core housing units. They had neither the capital nor managerial abilities to bid for such projects. Their most important contributions were during the housing improvement and consolidation stages. Here, they were hired by families directly, either on a full-time or part-time basis.

In relation to mutual aid and self-help, there are a number of reasons why small contractors and hired labour were employed. First, allottees might not have the skills needed for house construction. Second, family members might be employed elsewhere and it would be more advantageous for them to continue at their work rather than build their own homes. Third, higher status and prestige was accorded to houses built by skilled persons and very few homeowners were skilled. Fourth, building materials used in projects often required skills and abilities that homeowners

did not have. Finally, project managers often wanted houses to be finished as soon as possible, which left little time for self-help and encouraged the use of hired labour.

In the Dandora project in Kenya, three different methods of construction were used: families using self-help, building groups or families who band together and pool their resources to build houses, and small contractors. A 1978 study found that families using self-help used the greatest number of workers per plot, about 8.9 workers on the average. Despite the self-help nature of the work, about 76% of the workers were actually paid labourers, earning from Sh180–210/month.

Building groups usually employed six workers per plot, 60% of them paid labourers. Small contractors used 7.5 labourers per plot and paid 95% of them regular wages. The remaining 5% were usually homeowners who supervised the work or assisted in the construction. An interesting finding in the Dandora study was the fact that for all the houses actually finished, small contractors working with materials furnished by plot owners managed to do the job in the cheapest and most efficient manner. They averaged Sh3539/room or Sh354/m^2. A large portion of the lower construction costs was due to the fact that they could finish the units more quickly. Homeowners were also given the benefit of better workmanship (MEDIS 3, 1978).

Despite the willingness of small contractors and hired workers to work in housing projects, housing authorities have been somewhat ambivalent about their use. One reason for this is the strong commitment to mutual aid and self-help. Somehow, one can detect a feeling on the part of project managers that something is wrong when families who are supposed to work on their houses hire others to do the work for them. It matters little that opportunity cost, lack of skills, and a desire to finish the dwelling as soon as possible make hiring a small contractor and skilled workers the most rational option for the homeowner.

The ideal of self-help, after all, does not mean that a plot allottee must actually build a house manually. The important aspect of "freedom to build" is that one controls the design, choice of materials, construction techniques, and costs of the whole building process. The use of small contractors, artisans, and tradesmen makes this possible. Homeowners, in fact, to the fullest extent that they are able, can actually work side by side with the hired workers. They are free to hire workers for only parts of the job. They can elect to pay workers by the day or by what has to be accomplished.

In view of the proven contributions of small contractors and hired workers in generating employment, creating income, and generally getting the job done with some degree of economy and efficiency, it is the duty of project designers to plan conditions in such a way that the role of hired labour in construction is not artificially barred by regulations and procedures. For example, the choice of building materials could determine whether or not the role of hired workers would be enhanced. In Kenya, original project plans favoured the use of hollow cement blocks. However, small contractors and hired workers proved that using stone purchased from a nearby quarry could result in less expensive and better looking houses. Aside from economy and efficiency, stone houses had a special character not achievable among look-alike concrete block houses. The use of stone, furthermore, generated considerable employment in the area.

About 49% of the skilled workers surveyed in the project were masons. In fact, about 8% of plot allocatees turned out to be skilled in stone work as well, and found gainful employment in the community when not working on their own homes.

Another example of project intervention that has created negative effects has been the strict requirement of mutual-aid participation in the Salvadorean projects. As previously mentioned, this resulted in about one-third of the participants withdrawing from the projects before the mutual-aid phase was completed. Although some low-income families were included among these dropouts, it was found that income was not really the main factor. Many of the families had enough income to hire skilled workers to take their place in mutual aid work. Some families, such as those headed by women, did not have the skills, time, or inclination to do mutual-aid work. However, all families needed housing and were willing to pay for this, and there were skilled people willing to do the work for them. What got in the way was a project-management requirement based on a philosophy of housing provision that saw housing as a means to achieve other goals.

Attracting Industries and Manufacturing Firms

To help create employment opportunities and generate income in basic housing projects, housing authorities designated specific sites where industrialists and manufacturers could set up enterprises. Use of these sites was based on the understanding that entrepreneurs would give people from the area first chance at any jobs created. Some projects offer incentives such as free land, a moratorium on taxes, low rents, or adequate services. Others, however, assume that investment opportunities in the area are good enough to attract entrepreneurs. There are even projects in which industrial and commercial sites are sold at fair market values, the intention being that profits from this project component can be used to cross-subsidize other parts of the project.

Examples of programs to attract industries and manufacturing firms can be found in the Tondo and Lusaka projects. In Tondo, about 9.2 ha in the project was designed as industrial estate. A number of large buildings were constructed and offered to industrialists and manufacturers at concessional rates. It was estimated in the project design that the industrial estate would create some 800 full-time jobs. In Lusaka, about 100 plots within the project were earmarked as business and industrial sites. These were relatively large plots, ranging in size from 250–875 m^2. No additional incentives were offered with the plots. In fact, because entrepreneurs had to provide basic services themselves, they were actually offered more onerous conditions than families with residential plots.

To date, experiences with industrial estates and investment sites have not given encouraging results. Entrepreneurs have not exactly been lining up for the plots and industrial estate components have typically lagged behind in relation to housing and other elements in the projects. Some of the difficulties encountered have been due to project design. Most were due to implementation difficulties, such as those involving delivery of basic urban services. Other difficulties could be traced to problems in the project communities themselves.

Design Problems

A frequent problem with industrial estates and manufacturing sites is location. Many sites-and-services projects are in peripheral urban areas where transportation is difficult. The same problems that beset residents afflict investors as well. only more so. If their costs for transporting raw materials and finished products to and from the site are too high, they will not locate in the project despite subsidies and incentives.

There have been cases where the inclusion of industrial estates and manufacturing sites has been guided more by good intentions to help the people than on accurate information about the economic viability of the enterprises. A common problem is a lack of data on the educational and skill levels of project participants. The main benefit from the community is supposedly a rich and reliable source of cheap labour, but project authorities rarely have reliable information on this. The problem is that unemployment in cities is usually very high and an investor knows that people will go to the firm — the factory need not go to the people. Project designers, therefore, have to make it worthwhile for the entrepreneur to choose the project site through concessions, subsidies, and other incentives.

Another design problem is a lack of adequate information on what types of enterprises would be suitable for a basic housing project site. Because of their professional and middle-class orientation, project designers might have a strong preference for factories that are labour intensive, clean and nonpolluting, and follow regular office hours. Such enterprises, however, do not have any clear advantage for locating in low-income project sites because such locations would probably not provide the highly skilled people needed to sustain operations.

Other project designers have assumed that the rural backgrounds of former squatters and slum dwellers would make them good workers in cottage industries, crafts, and traditional vocations. Entrepreneurs who followed the proposals of these designers found to their chagrin that such skills were not as abundant as expected. Even when production problems had been solved through training and technical assistance, other problems related to marketing, distribution, quality control, and financing cropped up. Unfortunately, such problems are too complex to be adequately solved by project managers, who are usually architects or engineers.

Implementation Problems

One of the most serious problems in attracting industries and manufacturing firms to basic housing sites is the difficulty involved in providing them with adequate services. One critical issue is good transportation between the project site and market centres. Earlier sites-and-services projects tended to be isolated from cities because no provisions were made in the World Bank loans for roads that would link the projects with the metropolitan transport network. Most loans now include off-site infrastructures that allow planners to place basic housing projects within a metro-wide context.

Another common implementation problem arises from the fact that basic services to the project are managed by other government agencies. The actual delivery of services, therefore, is not within the control of the project managers, so it might be delayed or not come at all. If it comes, it

might not be in amounts sufficient to meet demand within the project. This is one of the main reasons for the lack of progress in the industrial estates program in the Tondo project. Despite the fact that the industrial zone was finished in 1977, the metropolitan waterworks and sewerage system had not been able to provide water to the site at the time of writing (1982). Thus, manufacturers needing water for production have not been able to start operations. The lack of water also makes the sanitation system inoperational, greatly limiting the number of people who can work on the site.

Similar failures to provide services are responsible for slow building on the business and industrial sites in the Chawama and George projects in Lusaka. According to project reports, about 294 applicants had expressed interest in the 100 plots allotted to this project component. Of these, however, only 81 applications had been approved and only 10 businesses had been completed and were operational. About 13 plots were still under construction and the rest were completely undeveloped.

An investigation into the reasons behind the slow pace of construction revealed that plot allottees were finding it difficult to pay for the basic services they needed to make their enterprises work. Unlike owners of residential plots, those who received business and industrial plots were not entitled to water or electrical connections. Also, they were prohibited from obtaining building materials loans. Project authorities had assumed that those people interested in the business plots would have had more resources. In fact, higher standards of construction were imposed on business plot structures. Apparently, the expectations have not been met.

Community Problems

From the point of view of the average entrepreneur, there may be very few advantages to locating in a basic housing project. Experience has shown, however, that some project managers do not seem to appreciate this when attempting to influence enterprises to move to project sites. Thus, they fail to anticipate the misgivings of investors and are not able to provide good conditions.

A common deterrent to entrepreneurs is the widespread impression that basic housing projects are "trouble areas." Most entrepreneurs assume that crime rates, juvenile delinquency, and theft would be prevalent in such areas. Such entrepreneurs would be investing heavily in buildings, equipment, and supplies. The real or imagined troubles in the area are a cause of worry. Good security measures, such as high fences, security guards, and watchdogs, can be instituted but they cost money, which reduces the firm's profitability.

For high-technology firms, locating in a basic housing project would not provide any advantages because most of the people there would be unskilled. Heavy investments in training are expensive and there are no assurances that, after being trained, people from the project would not seek employment elsewhere.

For manufacturers of consumer products, basic housing projects do not offer any real advantages. Incomes in such areas are generally low, so only a limited market can be expected.

When investors are from outside the community (as they would most likely be), they may not be welcomed by the residents. Studies have shown that project participants generally show some distrust of "outsiders." This is partly due to their knowledge that people from outside the community are usually eager to obtain plots within the project. They may also be aware that people with strong political backing, relatives of those in power, and other "influentials" are after plots as well. There are even some enterprising individuals who offer to buy plots in the project, despite the fact that this is illegal. All of these factors can make project residents antagonistic toward outsiders who are given the chance to invest in the project. In the Zambian projects, this was a notable reason for the relatively slow progress in the business plot scheme.

One characteristic that might discourage investors is the fact that life in low-income communities is usually highly politicized. Entrepreneurs might fear that, if they set up a business there, they would be under constant pressure to hire political partisans, relatives, and friends of powerful politicians. They might be forced to overstaff to accommodate these pressures. Like contractors in Jamaica, they might have to rotate workers in shifts to spread the jobs around. All of these problems, of course, would have serious cost implications that may adversely affect the viability of the firm.

Although some of these community problems have been encountered in some projects, careful planning and a good community-relations program usually overcome them. In a community-upgrading project in the Philippines, for example, a community-relations program was able to establish excellent working relationships with the low-income community by simply explaining that the capacity of the factory to create and provide employment for community residents would depend heavily upon the cooperation of the people. Because many people from the community were employed in the firm, they influenced others to refrain from vandalism, theft, and other negative activities against the firm. In turn, the firm returned the community's goodwill by donating a community centre, sponsoring a basketball tournament, allowing people to get clean water from its faucets, and contributing toward the expenses incurred by the community to celebrate the annual fiesta. Mainly, however, it was the fact that the firm provided jobs to residents that made them most protective of its interests.

Credit and Technical Assistance

A visit to any slum or squatter area usually reveals the existence of many small enterprises that people engage in to earn a living. The late Charles Abrams loved to refer to the many signs that he read while strolling around low-income settlements — signs that advertised stores, personal services, small factories, cooperatives, professions, etc. The signs were testimonials to the economic vitality existing in such areas and Abrams believed that employment- and income-generating programs could build upon such dynamism (Abrams 1964).

A 1978 survey in Tondo revealed that 20% of all structures were devoted to some form of commercial, manufacturing, craft, or service activity. A sample study of 203 establishments found that 24.1% were engaged in some form of manufacturing or processing; 12.8% were trading firms;

28.0% were services and professional establishments; and 35.1% were small retail establishments called *sari-sari* stores. Sari-sari stores were a ubiquitous fixture in all low-income communities. They sell a great variety of foods, dry goods, rice, cigarettes, and other basic necessities. Most of them extend credit to customers, allowing trusted clients to tally purchases in an informal "list." Amazingly, because of community traditions (and strong peer group pressures) sari-sari stores thrive and loan recovery among them has an excellent record.

One concern of housing authorities is that community-upgrading or sites-and-services projects might disrupt economic enterprises. A study in the Dandora sites-and-services project in Nairobi showed that there is no strong basis for this concern. The study revealed some 171 enterprises active in the community. Of these, 77.8% were engaged in selling items such as food (57.9%); other necessities (11.1%); illegal home-brewed beer and other intoxicants (7.0%), and building materials (1.8%). About 7.6% offered services such as tailoring, laundry facilities, shoe repairing, etc., and 11.7% were engaged in "other business activities." About 2.9% were workshops where useful items were manufactured for sale. It was estimated that economic enterprises in Dandora had a weekly turnover of around Sh140 000 (MEDIS 7, 1979).

The results of the 1978 Dandora survey were compared with a 1974 survey of Mathare Valley, a slum/squatter area that still exists in Nairobi. The pattern of small-scale enterprises in the two communities was remarkably similar, especially the predominance of trade. Although the community of Dandora is more "regularized" in that it is a Nairobi City Council project, the extent of illegal economic activities is more or less the same as in Mathare Valley. If project rules and regulations in Dandora had been observed, in fact, only 1.8% of the enterprises (those selling building materials) would be deemed legal. However, the only illegal activity actually controlled by the police is the brewing and selling of beer and other intoxicants. There are more people in Mathare Valley engaged in this activity, where it is combined with the running of bars and the renting of bed space for prostitution. Considering the situation in Dandora, the 7.0% of enterprises dealing in the brewing and selling of illegal liquor is remarkably high.

Small Business Loans

To help project participants increase their income, some basic housing projects have a small business loans program that extends credit and technical assistance to entrepreneurs. In the Tondo project, a small businessman might borrow up to P3500 to increase capital or expand operations. Small business loans were also a feature of the projects in El Salvador, Kenya, and Zambia.

Evaluations of small business loans programs in almost all projects have revealed that they were beset with many problems. The most serious of these are administrative. Housing agencies have found it expensive and difficult to manage small business loans. Asking a financial institution, such as a bank, to manage the program (as the National Housing Authority did in the Philippines) only served to reduce the efforts of entrepreneurs.

The biggest problem is the imposition of formal banking procedures in the processing of a loan. A small businessman who wants to borrow money

for business purposes must first apply to the Development Bank of the Philippines. There, the businessman is handed a long application form that demands all sorts of details about capital funds, operating expenses, equipment and supplies, personal assets, etc. The businessman is also asked to make a profitability analysis of the enterprise and is required to secure the loan with personal assets or guarantees from people who have to act as cosigners of the loan. If given a loan, the businessman must keep official books on all operations and must also agree to a regular audit, as well as periodic surprise checks, on the operations of the enterprise. Before being given a loan, the borrower needs to go to City Hall and obtain an official business licence. The recipient must also get police clearance and security clearance from the National Bureau of Investigation. All of this for a loan of less than US$500!

With all these administrative requirements, it comes as no surprise that 5 years after it was incorporated into the Tondo project loan, the small business loans program had only been able to reach 62 businesses, for a total loan of US$36 000. Part of the problem was a lack of information about the program. A survey of small businesses found that less than half of the entrepreneurs interviewed had heard of the program. Among those who knew something about the program, many said they never bothered to take advantage of it because they learned that the bank asked too many questions. Some cynically observed that one needed "political pull" to qualify for the loans.

The Philippine experience with small business loans is not unique. The fact is that the record for small business loans in basic housing projects has not been too successful worldwide. In almost all cases, administration of the program has proven to be the most difficult problem. Housing agency personnel do not know how to handle such programs and banking personnel do not seem to have much better success.

These administrative difficulties bring to mind the experience of the National Development Foundation of Nicaragua in setting up a small loans program for market vendors. Instead of asking a banker to organize the program, the foundation asked a former usurer to undertake the task. First, the program organizer set up a modest office in the market. He made it known that vendors needing capital funds could borrow from him provided that they paid the loan back, plus a small amount of interest, within 24 hours. There were no loan applications to complete — just a simple promissory note stating the amount of the loan and when the repayment was due. The program organizer, of course, knew most of the market vendors and relied on a network of informants for information on good and bad risks. However, the loans were made on the basis of trust — the borrowers were not required to secure the loan.

After a year of operation, this small business loans program was so successful that it could hire a full-time manager and a couple of clerks to run it. Analysis revealed that the main elements in its success were: giving loans on the basis of trust and personal knowledge about borrowers rather than on collateral and "sureties," which only symbolized distrust; making loan repayment periods as short as possible but making these coincide with natural "breaks" in the vending process; keeping the amounts small but the money turnover rates high; managing the business right in the place where the clients worked rather than in a distant insti-

tution; and establishing certain simple routine procedures for borrowing and lending, thus avoiding the formalization and institutionalization of the lending and borrowing process.

This Nicaraguan venture seemed to point to a number of factors that differentiate formal credit arrangements and small business loans. In view of the difficulties encountered in the small business loans programs in basic housing projects, the lessons learned might be worth introducing in other countries as well.

Cooperatives

In accordance with the social orientation of the Salvadorean Foundation for Development and Minimal Housing, assistance to small enterprises in its basic housing projects did not involve direct loans but assistance in setting up seven cooperatives. These included savings and loans co-ops as well as consumer, agricultural, and construction co-ops. The co-ops were off to a promising start in 1975 with 637 members, but membership declined to 629 in 1977. Capitalization in co-ops increased slightly from US$11 400–15 314 during the 3 years.

As a rule, the performance of the FSDVM-supported co-ops was not as good as expected. An agricultural production co-op found it difficult to find arable land near the project site and ended up renting and developing marginal land on very steep slopes some distance from where the members lived. This venture incurred serious losses. A bakery co-op found that the project site only provided a limited market for its products and failed to expand. A construction co-op managed to carry out specific jobs for the FSDVM but its performance did not really compare with the work of small contractors in terms of costs and the quality of its jobs. The savings and loans co-op suffered high rates of arrears and defaults.

The most successful co-op was a production venture that turned out handwoven rugs, embroidered clothes, and other handicrafts. It employed 50 women and 2 men full time. These workers increased their incomes by 70% in 3 years. The main problem, however, was that the co-op was heavily dependent upon FSDVM for purchasing raw materials, designing the products, marketing the finished products, and managing the finances. Although the administrative and technical assistance given by FSDVM to the co-op were not included in its cost (and they were substantial), a true evaluation of this production co-op revealed that it would not have been viable by itself.

To summarize, credit and technical assistance components in basic housing projects, be they small business loans or cooperatives, have not proven too successful in creating employment and generating income. Evaluation of such programs points to problems of administration and management as the most important reasons for failure. Unfortunately, increased understanding of such problems has not suggested ways and means of solving them. What the evaluations do suggest is that housing authorities often underestimate the complexity of such programs and attempt to substitute formal business solutions (as in the Philippines) or social reform experimentation (as in El Salvador) for appropriate management approaches.

To date, credit and technical assistance programs constitute rather minor elements in the total basic housing approach. Despite this, however, they

have used up valuable management resources in generally busy housing agencies. In the Philippines, more recent World Bank loans have proposed that credit and technical assistance programs should be decentralized to other units with better knowledge about credit management and finance, such as the Technology Resource Center or the Institute for Small-Scale Industries. There are even efforts to delegate the running of these programs to private groups who generally have more flexibility and are less bureaucratic than government institutions. It is too early to tell if these efforts will be successful. One hopes that they will be because income generation and the creation of jobs are important elements in a basic housing program.

Skills Training

To help project participants find jobs within or outside the community, housing authorities have included skills-training programs in basic housing schemes. Skills training might involve instruction in construction so that people can obtain employment in the project itself or use skills learned in mutual-aid and self-help work. One is reminded of the "construction brigades" trained in Cuba that, unfortunately, had such a dismal record in Jamaica due to political factors that had nothing to do with the nature of the training program itself. There were also many training programs in "aided self-help" launched by the US Agency for International Development through their housing advisors. Typical of such programs was the "training in aided self-help housing" program conducted at the African Development Area Center in Zambia, which attempted to "adapt traditional and modern means of construction for effective use of unskilled labour." The program used various techniques such as lectures, movies and slide shows, field exercises in areal planning, and actual work on demonstration houses. A great number of publications were issued as a result of these programs but systematic evaluations of their results and impact are very difficult to obtain (US Department of Housing and Urban Development, *Ideas and Methods Exchange Publications*).

A common complaint about skills-training programs is that they tend to be too academic, being based on lectures and multimedia presentations rather than on-the-job training and practice. This arises from the fact that they are conducted by professional trainers, who are more at ease in classrooms than on the construction site and more used to wielding microphones than hammers, saws, and chisels. A great deal of attention is given to concepts and ideas, and not enough to the development of manual dexterity and physical skills. The typical graduate of a skills-training program can tell you how the combustion engine works but will find great difficulty in actually changing a spark plug.

Another problem with skills-training programs is that they are usually geared to jobs in the formal sector. This is especially true of training programs for employment outside the community. Early skills-training programs introduced by government agencies in Tondo, for example, concentrated on stenography and typewriting courses for women and carpentry and automotive mechanics courses for men. The limited education of most participants, organized and formalistic nature of the

courses, failure to formulate an effective placement program, and overly high expectations of the success of the courses combined to make them frustrating experiences for the participants rather than productive ventures.

More and more, basic housing authorities are realizing that employment for project participants is more likely to be found in the informal sector than the formal sector, and that training programs should be geared to this. In the Tondo project, for example, skills-training programs have been conducted in such areas as beauty care (manicure and pedicure, cosmetology, hair styling, therapeutic massage), vending (simple accounting, how to estimate profit and loss), dress making, etc. For men, such service jobs as being a waiter, jeepney driver, barber, or bus conductor have been found to be more productive.

With skilled Filipino technicians being in great demand for jobs in the Middle East, technical training in such fields as welding, sheet-metal work, becoming an electrician, automotive mechanics, and handling heavy equipment have become popular. One of the earliest skills-training programs in Tondo was the technical program offered by the Don Bosco School for Boys that was set up in the area in 1963. Many Don Bosco graduates are now gainfully employed in firms both in the Philippines and abroad, and they are an important source of gifts and transfer payments to families in the community.

In other countries, important gains have been made in on-the-job training and apprenticeship programs because of the realization that formal and organized classroom-type training programs are just as effective. In Zambia, groups of technicians hired by the Housing Project Unit train and supervise construction workers and render technical assistance in the process. In El Salvador, the technical group that supports the mutual-aid groups performs training and supervisory tasks. These approaches are based on the premise that the best way of learning technical skills is by actually exercising those skills.

An important adjunct to skills training is assistance in the placement of graduates. In the basic housing programs evaluated, housing authorities have hired trained individuals for construction projects managed by the agencies themselves. Contractors have been encouraged to hire graduates as well. In addition, project managers have contacted firms around the project community to help them place their graduates. In some countries, a number of firms have been willing to hire apprentices recommended by the housing authorities, absorbing the workers as they became skilled. In a number of instances, firms have even been willing to pay the placement unit for their assistance and such fees have been used to improve the training and placement programs of the agencies.

Skills-training and placement programs can add to a project's administration costs, of course. One can argue, however, that such administrative costs would have to be paid by the agency anyway, and it is best that they are devoted to productive activities. To the extent that the trained individuals find jobs, they add to the family's capacity to pay for housing costs and they assure returns to investment on the part of the housing agency. The rewards from skills training and placement may not be direct but they eventually enhance the family's welfare and improve the project's effectiveness and efficiency.

Conclusions

Programs to create employment opportunities and generate income in basic housing projects are not, strictly speaking, traditional elements of a housing program. They have been instituted, however, because project designers have realized that the problem of housing the urban poor does not involve housing alone — often, housing is a function of people's poverty and if such poverty can be alleviated, housing would probably improve.

To date, the success of programs intended to enhance employment and income has not been overwhelming. Part of the difficulty may be traced to the lack of experience and knowledge on the part of housing authorities in the management of such programs. As shown in the evaluations, programs have tended to be formalized, overorganized, academic, bureaucratic, and irrelevant to the actual conditions existing in low-income communities.

Because of the difficulties with such programs, there have been proposals for taking them out of basic housing packages. There have been theoretical studies that have suggested that basic housing is quite independent of poverty, that substantial and comfortable housing can be found in slum/squatter areas, and that families with high incomes in slum/squatter areas do not necessarily see housing as the most important item for investment. A housing program, therefore, need not be seen as an effort to alleviate poverty. Programs to alleviate poverty, in turn, may not necessarily affect housing quality.

It is all very good to clarify these theoretical distinctions but in the slum and squatter areas themselves the close relationships between employment, income, and housing quality are directly observable. Cost recovery is one of the most important indicators of project success and it depends heavily on whether or not people have jobs and income.

Whether programs for job creation and income enhancement should be handled by the housing agency or by other institutions is a separate issue. As already mentioned, there is a tendency in recent World Bank loans to allocate the responsibility for these programs to other agencies. What is important is that the loans themselves have program elements for helping to create jobs and generate income. If there is any lesson that the literature on slums and squatters has driven home, it is that housing is only part of the total socioeconomic package that makes up the totality of life in low-income areas. To isolate housing and interprete shelter and services programs only in terms of housing construction would be rolling back the clock. In a world where the numbers of urban poor are growing rapidly, this is a move that society cannot afford.

COST RECOVERY 6

Access to Tondo, Philippines, was difficult before the road network was upgraded.

Housing projects evaluated in this study showed wide discrepancies in cost recovery records. Zambia and Senegal had high rates of arrears and defaults. On the other hand, El Salvador had only 2.3% of its total loan portfolio in arrears as of July 1980. With respect to payments in arrears, only 22.4% were behind in payments for 90 days or more.

The evaluations suggest that cost recovery is closely related to a number of factors, among the most important of which are: (1) levels and rates of repayment, (2) types of participants selected for the project, (3) collection machinery and procedures, and (4) role played by the community in cost recovery. There are, of course, other factors that enhance or impede cost recovery. A frequently mentioned factor, for example, is the lack of "political will" on the part of housing authorities to collect project repayments. One criterion in identifying the factors mentioned above, however, is the extent to which they are amenable to "tinkering" by project authorities (i.e., that they can be regulated and managed to achieve better results). Factors such as political will, which leave little to be done beyond exhortation to do better, are not considered in detail here because they are more in the province of politics than administration and management.

Levels and Rates of Repayment

A crucial factor affecting cost recovery is the determination of how much of project costs should actually be recovered. This translates into the terms of the loan. Most World Bank loans for basic housing in the mid-1970s were issued at interest rates of 7–8% per year for periods of 20–25 years. These loans were made "softer" by the inclusion of grants, usually for training and technical assistance, which were nonrecoverable. A common practice, also, was to mix more concessional International Development Association (IDA) funds with International Bank for Reconstruction and Development (IBRD) funds.

Housing agencies in developing countries usually reloaned World Bank funds at interest rates of 12% or more over 15–20 years. The higher interest rates and shorter period for repayments were justified by the administrative costs, security against inflation, and a desire not to disrupt existing lending practices that were usually less soft than basic housing loans. Developing country economists treated World Bank funds as "expensive money" because it had to be repaid in hard currency over a long period of time. They usually favoured repayment terms that reduced the element of subsidy in such loans.

No matter how one figures out interest rates and periods of repayment, the main policy issue to be confronted in basic housing projects is whether there should be full recovery of all project costs or whether all or a portion of such costs should be subsidized. It has been argued that because of the urgent nature of the housing need, the low capacity to pay of the

urban poor, the inability of existing credit structures to respond to the needs of the poor, and the fact that basic housing generates benefits that go beyond housing there is sufficient justification for subsidies. However, even if these arguments are accepted (and there are still those who adamantly refuse to accept them), there are still a number of ways by which project designers can determine whether subsidies could be woven into the project or not.

Based on country experiences so far, subsidies in basic housing may be influenced by such factors as: (1) mixing of local with foreign funds; (2) valuation of land; (3) treatment of infrastructure costs; and (4) administrative costs.

Mixing of Funds

The "expensive" nature of international loans can be softened considerably by the choice of what local funds can be mixed with it. All loans require "counterpart funds," which may come from proceeds from taxation, capital funds, or special funds and reserves. Because the types of local funds also have varying "costs," the choice of whether basic housing programs should be subsidized or not (and, if subsidized, to what extent) can be determined by which funds are mixed with foreign loans.

In developing countries with functioning financial systems, there are usually special funds such as government insurance systems, pension funds, social security funds, or trust funds. Because repayment to beneficiaries of these funds is usually deferred, the funds are excellent sources of relatively "inexpensive" matching funds for foreign loans. In Jamaica, for example, all government and private sector employees have to contribute 5% of their salaries to a National Housing Trust (NHT), with the employer putting in 3% and the employee the other 2% of the amount. These contributions are to be paid back to the employees after 5 years, but in the meantime they could be used for basic housing. It was proposed in 1982 that if the NHT funds were mixed with foreign loans they would go a lot further and subsidies would be much lower than if proceeds from taxation or capital funds were used.

Value of Land

The cost of a basic housing project can be increased or decreased by a policy decision on whether land costs should be included or not. This is heavily influenced by the government's philosophy on the matter. In Zambia, the cost of land is not considered, only development costs. In El Salvador, where the Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) had to purchase project land at the fair market value, the cost of the land was added to the total project costs. Tondo, in the Philippines, because of its special history, charged project participants only a fraction of the real value of the land. In subsequent community-upgrading projects, however, the full value of the land was included in the recoverable cost.

Infrastructure Costs

Because expenses for constructing infrastructures make up the bulk of

Drainage canal prior to the implementation of the Kampung Improvement Program, Jakarta, Indonesia.

project costs, the usual policy is to include them in recoverable development expenses. However, there are a number of factors that should be considered, factors that may determine whether subsidies are justified or not.

As previously mentioned, most recent projects now include off-site infrastructures such as roads to connect the project to metropolitan road networks, water or sewer pipes, and drainage canals and trunks. These infrastructures are not used by project participants alone but are accessible to all residents. To charge the full costs of such infrastructures, therefore, would be unfair. It would be tantamount to a reverse subsidy, where those less able would be helping those with better means.

Similar arguments can be used for expensive waterborne sanitation and drainage systems used in basic housing projects. If the projects are designed for the low-income clients alone, sanitation services such as pit latrines or cesspools might be deemed sufficient. However, because the projects have to be considered in the context of the larger society, higher levels of sanitation standards are used. Again, to charge full development costs for systems of this type would be unfair to project participants.

Management Costs

It takes a sizable bureaucracy to run a basic housing project and one question worth raising is the extent to which the costs of running such a bureaucracy should be charged to development costs. In most developing countries, government bureaucracies are paid from tax proceeds. However, many basic housing projects are often treated as "special

Improved drainage canal in Kampung Improvement Program site. Jakarta, Indonesia.

projects" requiring the organization of a separate administrative arm (e.g., the Housing Project Unit of the Lusaka City Council, the Tondo Foreshore and Dagat-Dagatan Development Authority of the National Housing Authority). In El Salvador, because FSDVM was a private foundation and the basic housing program was its most important activity, administrative costs were included in development costs. Because including administrative and management costs in recoverable expenses raises the amounts to be repaid by clients, it has been argued that they should be subsidized by public authorities. After all, this is the normal procedure for most bureaucratically run government programs.

Fixing Levels and Rates

The policy issues raised above can influence the extent to which the government would be willing to subsidize basic housing programs. If subsidies are decided upon, they would probably be included in capital subsidies, i.e., how much of the actual development costs would be recovered. Aside from this type of subsidy, however, project designers can also formulate ways and means of including interest subsidies in projects. This may be done by manipulating the interest rates applied, time period of repayment, and whether down payments would be charged or not.

One way of subsidizing project participants who need assistance to make the project accessible to them is to apply variable interest rates to different income groups. This option was used in Jamaica, for example (Table 3), where families able to afford only J$3500 for a basic housing package are charged 4% over 30 years and those who can afford a J$30 000

Table 3. Variable levels and rates of repayment (J$) (1982).

Housing option	Cost	Down payment	Interest rate (%)[a]	Monthly payment	Amount of interest subsidy[b]	Amount of capital subsidy[c]	Monthly payment[d]
Type A: site only, with minimal services	3500	—	4	16.71	5042	1155	20.58
Type B: site fully serviced	6000	—	5	32.21	7360	2000	35.10
Type C: site fully serviced, with 200 feet² (18.58 m²)	16000	1600	6	86.34	14410	5334	93.60
Type D: site fully serviced, with 300 feet² (27.87 m²) core house	21000	3150	7	118.76	13639	7000	122.86
Type E: site fully serviced, with 480 feet² (44.59 m²) core house	30000	6000	8	176.10	12426	10000	175.51

Source: PADCO (1981, p. 27).

[a]Based on a period of 30 years.

[b]Difference between interest rate charged in 4th column and a fixed rate of 10% over 30 years.

[c]Assumed at 33⅓% of total cost per unit.

[d]Based on total cost minus capital subsidy at 33⅓%.

house are charged 8% over 30 years. This makes the basic housing option affordable to families down to the 13th percentile of urban income groups and enhances accessibility of the project.

Another way of enhancing the affordability and accessibility of basic housing is to vary interest rates over the time of indebtedness. Thus, repayments for the first 3 years of indebtedness may be fixed at 1%, with rates being raised gradually in later years up to 12%. In this way, loan repayment charges can be made easier during the "period of maximum stress" when families are spending heavily for building materials, furniture, labour, and other housing expenses. The variable rate through time is based on the assumption that the incomes of project participants generally improve in later years. Imposing a higher rate when the family can afford to pay makes repayment easier for the participant. The lower rates during the early years also mean that more poor people can be accommodated in the project.

In general, the longer the period of indebtedness, the larger the amount to be repaid, although regular amortizations might be lower in the short run. Project designers can ease the situation for project participants by giving them the option of paying a down payment or paying off the debt earlier than the maturation date if they have the means to do so. As previously mentioned, incomes in low-income areas are usually irregular and subject to boom or bust tendencies. Allowing project participants to close their accounts during boom periods not only results in effective cost recovery but it is also of tremendous help to the project participants as well.

Grappling with issues of rates and levels of loans and repayments is just a technical way of assuring the affordability and accessibility of projects.

In general, affordable projects, all things being equal, should have no problem recovering costs of investments. Accessibility, however, cannot be achieved without meeting the issue of subsidies head on. As indicated in Table 3, subsidies can be made in the form of interest-rate manipulation or capital subsidies. Both approaches can be used, of course, if the government so desires.

One point worth emphasizing in figuring out rates and levels of repayment is the need for maximum flexibility to assure that project participants are able to repay their loans. The literature on slums and squatters has revealed the irregular and indeterminate nature of incomes. Families find it easier to spend less money more frequently because of the small trickle of their cash flow. Lump-sum payments are extremely difficult to meet because of low savings. However, one-time large payments, such as a down payment, may be met through transfer payments and gifts from relatives and friends. Priorities, in terms of what bills should or should not be paid, are decided on a daily basis. All of these research findings should be considered when setting levels and rates of loan repayment. They will probably help to enhance cost recovery much better than the setting of the rigidly scheduled repayment terms favoured by banks and other institutions in the formal sector.

Selection of Participants

A good way of assuring cost recovery in basic housing projects is careful selection of participants. All sites-and-services projects in this study had eligibility criteria for participants. Factors included in these criteria were: household income, family status, residence in a project site or city, and good moral character. In El Salvador, willingness to participate in mutual-aid work was required. In Manila, only families included in a 1973 census and whose houses were "tagged" at that time were deemed eligible for the project.

The proportion of a family's income that can be devoted to housing seems, at first glance, to be a foolproof element in cost recovery. The Zambian evaluation, however, revealed that arrears and defaults did not correlate with income levels at all. In a study of three sites in 1978, it was found that default rates were 72% in George and 61% in site I. Both high- and low-income families were in arrears. Two substudies further confirmed that inability to pay was not the main factor in the large proportions of families in arrears. First, a previous study of renters in Chawama was cited. It found that renters had much lower incomes than project participants but that their default rates were negligible. Second, a survey of families in other housing projects run by the Lusaka City Council was made. It was found that families in these projects had much higher levels of income than renters but their repayment rates were even worse than those in the Chawama, George, and site I projects.

With respect to family status, evaluations in Senegal and Zambia, as well as studies in Kenya and Jamaica, suggest that single-parent households tend to have more difficulty in meeting project payments than nuclear or extended families. This is particularly true among households headed by females. The studies also suggest, however, that it is low income, rather

than family status itself, that is more important in determining one's inability to pay. The mutual aid requirement in El Salvador also tended to force those households headed by women to drop out. In Jamaica, households headed by females had a lower participation rate in mutual-aid and self-help activities as well. Difficulties in meeting project repayment demands, therefore, might be just one of the problems faced by households headed by women in basic housing projects.

Prior residence in a project site (or from one definite community in sites-and-services projects) might enhance cost recovery in that community pressures of a direct or indirect nature may be used to encourage people to pay their debts. In El Salvador, it was found that participation in mutual-aid work, aside from the direct benefits it brought about, also tended to make social relationships in the project much better. The experience of working together, of being exposed to the social-consciousness training given by FSDVM, and of solving common problems as a group tended to make neighbourhoods more cohesive. This cohesiveness, in turn, might have been responsible for the high repayment rates in the projects.

Selecting the right participants, however, has to be balanced between ability to pay and accessibility. If high cost-recovery rates are due to over-qualified participants, then the projects might not be achieving optimal results.

Collection Machinery and Procedures

Structuring levels and rates of charges and choosing the right participants for basic housing projects might help achieve better cost recovery but in the long run it is the institution of effective machinery and the enforcement of correct procedures that will help ensure that development costs are collected. Based on country experiences, the most important factors responsible for achieving good cost recovery are: (1) provision of accurate information to project participants; (2) development of effective sanctions in cases of default; (3) establishment of clear procedures for billing, collection, payments, recording etc.; (4) determination of the level of satisfaction with services rendered by management; and (5) community pressure.

Information

Lack of accurate information has been proven to be one of the most important factors related to high default rates. This was shown in the results of a survey conducted in Zambia in 1978, in which the following was found:

(1) Among those families who had defaulted on loans, about 50% did not know the correct status of their arrears.

(2) About 75% of defaulting families did not know that the Lusaka City Council could impose sanctions because of their failure to repay the loans.

(3) About 15% of those families who were in arrears were under the impression that their employers were deducting house payments from their salaries; another 15% said they were not told when payments should start; and another 10% believed that they were not supposed to start paying until their total loan was completely withdrawn or their house was completed.

(4) About 67% of respondents were not aware that service charges in the

project had been increased to K3.0/month. Of those who knew about the increase, 94% did not know the reason for the increase.

(5) About 51% of respondents could not remember having attended a meeting regarding loan repayment conditions; 58% said they had never been contacted by project officials to pay their arrears; and 91% said that local community leaders never talked to them about paying their arrears.

Even if it is assumed that project participants are wont to suffer from momentary memory lapses when confronted with the fact that they are in arrears, the specificity of the items not known by the respondents points to a lack of information. The Zambian study reveals the need for a good information system to effect cost recovery. It is true that such a system can be expensive; however, the increased possibility that more funds can be collected through its use makes the expense worthwhile.

One problem with many basic housing projects is the tendency for project authorities to rely heavily on formal channels of communication to reach participants. Community newspapers, printed or mimeographed information sheets, organized community meetings, and formal letters tend to be used despite repeated research findings that functional literacy rates in such communities are low. Communication in low-income areas tends to be based more on informal leaders and face-to-face interactions. Thus, selective information dissemination to informal leaders and influentials might be a more effective means of communication than printed and other media.

Instead of using the printed media, many housing agencies have found that their own personnel are communicating with people directly. The Tondo Foreshore Development Authority discovered in a 1979 survey that more people relied on National Housing Authority (NHA) personnel than on barangay leaders or the office newsletter for information about the project. Of special importance were personnel of the Community Relations and Information Office (CRIO), who made a point of establishing maximum personal contact with leaders and community residents alike. In El Salvador, the people considered the *promotores sociales* or "animateurs" of FSDVM the most reliable source of information. Through small group meetings, face-to-face interactions with individuals and families, and just plain presence in the project area, FSDVM community-development workers have established themselves as a good source of information.

Communication theorists have long lauded the "two-step" communication model as an effective approach to community relations. According to this model, messages initially presented in formal media might be reinforced by interpersonal relationships with community leaders, agency personnel, or "influentials" who lend support to the messages. Project managers interested in effecting better cost-recovery rates could heed this approach. By clarifying their messages first, then reinforcing them with personal approaches, they might be able to improve their collection rates.

Sanctions

Some project authorities do not want to rely on negative sanctions to effect better cost recovery. However, project participants generally understand that sanctions are part of the contractual agreements they sign. When the consequences of their actions are fully explained to them, they usually have no trouble complying with project rules and regulations.

After all, most of them are usually convinced that basic housing projects are beneficial to them and are certainly better than the slum/squatter areas they leave behind.

There are a number of "rules" that may be formulated with respect to sanctions. First, the sanctions must be considered fair and equitable by both the participants and project management. Second, they must be enforceable. Third, both action and consequences must be communicated to all participants until they are well understood. Fourth, management must be willing and able to enforce sanctions quickly and unequivocally. Finally, despite all of the above, sanctions must be enforced as appropriate to each case individually so that the merits and demerits of each case can be sorted out in order that rules and regulations are not implemented blindly.

Assuring the fairness of regulations on sanctions requires maximum community participation. It is not enough to take some rules from standard leasing contracts and hope that these will satisfy participants in basic housing projects. Low-income people live in a world where bargaining is the rule, where appeals for charity, pity, or morality on the one hand and the use of force and the threat of violence on the other are equally important in negotiations. There is a strong tendency, also, for project beneficiaries to mimimize the costs and difficulties involved in home ownership, especially at the outset when they are still euphoric about being included in the project. It is not until later that the real difficulties are felt, and then the problems begin.

This is not to say that low-income people are wily and tricky, they just have their own priorities. Where there are many urgent demands on their meagre resources, it is only natural that they will devote their resources to uses with the least negative sanctions. If project authorities convey the impression that they are not able to apply sanctions — or worse, that they are not willing to enforce sanctions — they will be ignored.

One of the main stumbling blocks to cost recovery in Zambia, for example, is a provision in the Housing Act that could be interpreted in such a way that it would imply that sanctions could only be used by the City Council if they brought defaulting families to court for "breach of contract." Knowing how difficult, expensive, complex, and time consuming court cases can be, this particular provision has adversely affected collections in projects. Even getting a legal opinion on the specific provision has taken a long time. In the meantime, arrears and defaults in the Zambia projects have piled up.

Where sanctions can be administratively enforced — and they should be, as much as possible — quick and decisive action is most effective. Delays and vacillation can be interpreted as a lack of will on the part of project management to enforce the sanctions. In some instances, it may be necessary to pursue a few cases to show others that the rules will be enforced.

One danger related to active enforcement of sanctions is that the community may turn against project management as a body, resulting in an unproductive confrontation. Usually, this can be minimized by explaining that the terms of the contractual agreements were clear to both sides. It may be a bit Machiavellian, but isolating the party against whom sanctions are being used can be done by pointing out the dangers that toleration of contractual violations can bring to the whole project. This type of expla-

nation might bring community pressure to bear on the offending party instead of against project management.

Based on the Philippine and Zambian experiences, one of the most common problems in cost recovery was failure to clarify the conditions under which sanctions would be used. In Zambia, it took a couple of years before the real obligations of project participants were spelled out (how much to pay, when, where, in what way, and what for). In the Philippines, the long drawn out debates and discussions regarding land in the Tondo foreshore prevented management from setting up the schedule of payments. Even after it was decided that land would be sold outright to project participants, continued debates on how much of the development costs should be charged further hindered collections. In the meantime, people got used to not paying project charges. In Zambia, the belief became widespread that project management had no "political will" to collect charges. The growth of this feeling only makes cost recovery that much more difficult in the long run.

Incentives

To balance the possible negative effects of sanctions, project authorities may set up incentives to reward people who pay regularly or pay in advance. Examples of such incentives include:

(1) Paying a lower rate if participants pay on or before a specified date. Among low-income people, every cent saved counts. If they can save some money by paying early, they will probably be encouraged to pay early.

(2) Receiving a discount (or cash rebate) if participants pay in advance. As already mentioned, incomes of participants are often irregular. If they can save significant amounts by paying debts in advance during boom times, they might be encouraged to do so. Project management can afford to give rebates or discounts for advance payments because it saves on administrative costs.

(3) Foregoing interest and other charges if a participant pays in full. Again, this will not cost project management much because of the savings in administration and management costs.

(4) Public recognition of families with excellent payment records. This may take the form of certificates and awards, publication of their awards in community papers, or formal award ceremonies during community meetings.

(5) Public recognition of neighbourhoods with excellent payment records. Aspiring for the awards might create community competition, thereby creating community pressure on families.

(6) Public recognition of community leaders whose neighbourhoods have excellent payment records. Again, this may create friendly competition and result in community pressures to have better cost recovery records.

Sociological studies of slum/squatter communities point to the fact that families often feel uneasy over their debts. If they have the means, people will pay cash. Perhaps, because life is already full of pressures and insecurities, the idea of long-term debts weighing on their minds makes people ill at ease with indebtedness. For a poor family that has little more than its honour and reputation, being accused of being a deadbeat is a serious provocation. All of these factors predispose low-income project participants to settle debts on time or in advance. Project management

must be flexible enough (and, through incentives, encouraging enough) to reward timely or advanced payments.

It is worth keeping in mind that low incomes in project communities are not synonymous with inability to pay. If people have the means, they will pay, and pay in advance. One interesting research finding in Lusaka, where defaults and arrears were common, is as follows:

> In all the project areas, the proportion of monthly debit paid is consistently higher than the proportion of actual payers each month. This is due to some participants making advance payments, particularly by using part of their Zambia National Provident Fund.

In other words, despite many factors influencing the majority of project participants not to pay their regular amortizations, those who paid were even paying in advance (Sanyal et al. 1981).

Collection Procedures

As noted earlier, people will find excuses for not paying their bills if the procedures for doing so are not clear. One of the deterrents to cost recovery is the lack of information about when and where people should pay. In too many instances, project authorities expect people to come to their main offices to pay their accounts. A survey of families in arrears in Zambia yielded the following information:

> About 7% of the respondents said that there had been instances when they had gone to make monthly payments and had found the cashier's office closed; 9% had the experience of not being able to make payments because the line was too long and another 7% had to come back because in the absence of the cashier responsible for their block, other cashiers refused to accept payments.

One might say that these respondents were only making excuses. However, the specificity of the charges indicates that they may have been based on actual experiences (Sanyal et al. 1981).

Faced with procedural problems, project authorities in Zambia tried various approaches. For participants who were regularly employed, arrangements were made to collect project payments at the source through payroll deduction schemes. This worked out quite well, with only a few hitches. In some instances, employees neglected to sign the agreements allowing payroll deductions to be made. There were also some small offices that found it too cumbersome to collect and turn over funds to the housing agency. Project authorities solved this problem by asking offices to deposit collections in a bank, which credited such funds to the housing agency's account.

Another approach tried was to authorize community leaders (representatives of the ruling United National Independence Party (UNIP)) to collect payments in their neighbourhoods. This was welcomed by some 24% of respondents. However, about 68% of households said they would prefer to pay officials of the Lusaka City Council. Many of these expressed a lack of trust of UNIP leaders.

Based on experiences in a number of countries, it is quite clear that an effective procedure for cost recovery might require the following elements:

(1) Each family should be given a written statement indicating the full amount of indebtedness, the amount of each monthly charge, how much of the monthly charge goes toward the payment of interest and how much toward the principal, when each payment is due, and where the family can pay. Any incentives or sanctions should also be clearly indicated in this statement.

(2) If the family is not able to pay on time, specific procedures should be followed as routinely as possible. For one payment missed, a personal visit from an agency collector should be made. For two payments missed, a written notice, indicating penalties and sanctions, should be mailed or hand delivered. For three payments missed, personal counseling from an official from the housing agency may be arranged. Arrears in excess of four payments should trigger formal procedures for foreclosure, eviction from the project, seizure of furniture and other assets, padlocking the house, and denial of access to premises. It is most important that these procedures be clearly indicated to project participants in advance.

(3) For families who pay regularly, or those who are able to pay in advance, a clear schedule of incentives should also be provided in writing. For example, families who pay 15 days before due dates could be given 10% discounts, those who pay 1 or more months in advance could be given 20% discounts, and families who pay their accounts in full might not be charged interest and could be given 25% discounts. These are just examples, of course, the exact rates and amounts can be calculated to fit each country condition.

Based on what is known of credit behaviour in slum/squatter areas, it is necessary to maintain frequent and regular contacts between collectors and debtors if cost recovery is to be effective. Because of many competing demands on the money of low-income families, constant pressure must be exerted on them to remind them about their payments. This is the secret behind the high cost-recovery rates of slum landlords and those who sell things according to the installment plan in the slums.

In the Philippines, there are many local traders who regularly make the rounds in low-income areas selling goods and services on the installment plan. These were traditionally traders from India and were generically called "Bombay" traders. Their wares included traditional black umbrellas, cloth, dresses, rugs, and plastic dishes. The "Bombay" trader visits the community almost daily. Families can pay P1 or even smaller amounts and the trader deducts this from the outstanding debt. Although the individual amounts may be small, the fact that many families owe the trader makes the daily trips worthwhile. Housing authorities can take some lessons from this method of doing business. Some collection procedure patterned after the "Bombay" trader making the rounds would probably be more successful than one in which families are expected to go to the housing agency's offices, only to get mad when the offices are closed or a cashier is out of the office.

Dissatisfaction with Services

A common reason for people's refusal to pay project charges is dissatisfaction with existing conditions. This is especially applicable to service charges but it can affect loan amortizations as well.

In Tondo, for example, the National Housing Authority has not been able to collect rents in the Old Vitas tenements because people have vowed that they will not pay until they are provided with water, the sanitary system is unclogged, leaking roofs are fixed, and walls and windows destroyed by vandals are repaired. Similar dissatisfaction was behind the opposition to increased service charges for water, street lighting, and garbage collection in Lusaka:

> About 75% of respondents who were aware of the coming increase felt that it was unfair on the part of the HPU to ask them to pay for electricity which is only provided along the main road and for garbage collection when, in fact, no garbage is collected. About 18% of the respondents felt that the increase was too much and people would not be able to afford it.

As it turned out, the level of collection for service charges decreased because people were dissatisfied with the services.

Although community dissatisfaction can be disruptive, it can be turned around for the project's benefit. Focusing on specific complaints, such as services, has the effect of organizing and mobilizing community resources. It tends to identify leaders who become the focal points of common action. A sensitive project management can take advantage of the emergence of issues and leaders and use these for resolving community-management problems. From these interactions, a better system for cost recovery can emerge.

Community Pressures

In a number of basic housing projects, community cooperation and pride has proven to be a strong ally in facilitating cost recovery. In Zambia, people can pay monthly charges to community leaders. In El Salvador, community leaders are asked to follow up on families in arrears. In the Philippines, leaders are encouraged to disseminate information about project charges to their neighbourhoods and they are expected to provide feedback on community reactions and feelings to project management.

A rather unique way of using community pressure to effect payment of service charges has been tried in Zambia. Participants in Lusaka projects were organized into community groups of about 25 families each. Families belonging to a community organization were asked to sign a formal agreement that they would have collective responsibility for payment of the charges. In other words, if one or more families belonging to a group were delinquent in paying service charges, the whole group would suffer because the services to the community would be turned off. The theory was that because the whole community would suffer if one family defaulted, all of the members would help each other, perhaps contributing extra amounts to help a member temporarily unable to meet service charges. If the inability to pay is not due to a lack of resources, other members of the community could exert pressure on the offending member to pay.

An evaluation of the community pressure system did not turn up good results. Families who paid their service charges religiously complained bitterly that they were being treated unfairly. They claimed that they did not know who the nonpaying families were, so they could not exert pressure

on them. Project authorities, somehow, failed to inform the community leaders about delinquent members and the abrupt shutting off of community services was met with anger.

Aroused communities, instead of putting pressure on their members, used their energies to get at project management. Some public faucets were forcibly opened, resulting in wasted water and destroyed equipment. Health conditions in the "punished" communities also deteriorated because people started using old surface water wells for drinking water when the taps were shut off.

The Zambian experience revealed, therefore, that community pressure can be a two-edged sword. When used wisely, people will work hard to bring honour and pride to their communities, and they will compete with others to have the best repayment records. When community pride is turned against project management, however, results can be quite disastrous. In the long run, therefore, the use of community pressure for meeting project ends is better applied using positive rather than negative approaches. Incentives, rather than sanctions, might yield better results.

The Subsidy Issue

Cost recovery is the reverse of the subsidy issue because it is directly linked to affordability. Recovering project costs will not be too difficult if all project participants can afford them. In the case of the poorest of the poor, cost recovery will also be easy if project authorities decide to subsidize the difference between true development costs and what the poor can afford.

One of the principles adhered to by financing agencies and governments with respect to basic housing projects is that all development costs should be recovered. Full cost recovery is justified in the name of replicability. It is argued that more projects can be launched if they are self-financing and do not eat up precious national resources.

In a number of countries where social justice is a lively issue, however, full cost recovery has been questioned. Studies in these countries have shown that housing, infrastructure, and other services for middle- and high-income households do not enjoy full cost recovery. On the contrary, such services enjoy considerable subsidies. In light of this finding, how equitable are policies that demand full cost recovery from basic housing projects for the poor when housing and other services for the rich enjoy substantial subsidies?

A country in which the issue of cost recovery in basic housing has been raised is Zambia. A 1978 study revealed that the Zambian government spends about K95.1 million per year in housing subsidies (about K29.8 million by the central government, K4.6 million by the local governments, and K60.7 million by parastatals) (Sanyal 1980). The subsidies take the following forms: (1) housing allowances to civil servants and employees who own their homes; (2) allowances to house renters, which include (a) cash allowances for renters who rent houses in the "open market," (b) allowances in kind for employees who live in houses rented by their employers for them, and (c) allowances in kind for employees living in houses owned by their employers; and (3) low interest mortgage loans.

The study revealed that about 93% of the 70 540 public sector employees in Zambia received some form of rental subsidy. Determination of this subsidy depended on job status, salary, length of service, size of family, and other considerations. In general, the higher an employee's rank, the higher the subsidy.

The gap between the rich and poor in Zambia is quite wide. It has been estimated that, overall, 10% of the households in Zambia receive 40% of all income, whereas the remaining 90% receive only 60%. This social inequality is paralleled by housing subsidies. The 1978 study showed that the top 10% of employees got 50% of the subsidies, with the remaining 90% receiving the other 50%.

Housing subsidies for civil servants in Zambia are a carry-over from colonial civil service traditions that sought to augment salaries with perquisites to attract the ablest and the best people to the civil service. When the colonial civil servants were replaced by Zambians after Independence, they did not surrender the salaries and perquisites inherited from their predecessors. On the contrary, the subsidies were increased.

Continued awarding of housing subsidies to those who have and exacting full cost recovery of housing costs from the have-nots has been questioned in Zambia because it has been having the following effects: (1) the difference in benefits between the haves and the have-nots has been widening, thus creating the possibility of class tensions; (2) access to housing among the very poor, who are likely to find jobs in the informal sector, is becoming extremely difficult because housing is tied to employment; (3) home ownership in Zambia is being discouraged because employees who receive high rent subsidies find no incentives to attempt to own homes; and (4) at higher income levels, people are "overconsuming" housing in the sense that they are occupying houses that are too expensive for their needs — something they would not be able to do without housing subsidies.

Although conditions in Zambia are highlighted here, they are not really that different from those existing in other developing countries. Subsidies there might be more indirect, but they are considerable nevertheless. Aside from the subsidies found in Zambia, there are other forms such as greater access to pension funds, savings and loans associations, and building trust funds; tax-free mortgages; and tax-deductible allowances when one's house is also used as a place of employment. On top of these subsidies, services for urban well-to-do families are invariably cheaper. It has been shown that the cost of electricity for the urban poor is invariably higher because it is rarely metered and the poor have to pay for the risks taken by the "entrepreneurs" who clandestinely provide it. Water is also more than 10 times as expensive for the urban poor because it has to be purchased from itinerant vendors rather than piped directly into their homes.

It is one of the ironies of urban conditions in developing countries that those who have less in life are charged fully for the little they get, whereas those who enjoy formal services pay relatively little. The principle of full cost recovery is sound; however, it should be adjusted so that it means full recovery of charges *after* the subsidies due the project participants have already been built in. Until that equitable decision is made, it will be extremely difficult to achieve effective cost recovery of project costs because the moral justification for the charges has not been provided.

COMMUNITY DEVELOPMENT

7

The street becomes a playground in a normal Tondo slum community, Philippines.

Community development is the process by which people become involved in and are organized and mobilized for the attainment of common goals. In almost all basic housing projects, there is a community development unit staffed by sociologists, social workers, information specialists, and community "animateurs." Such a unit usually has a research function (data gathering and analysis, dissemination of information). It also carries out community organization, liaison work with other agencies, training, and project evaluation.

Because basic housing approaches require a great deal of explaining, motivating, training, and mobilizing, community development has an important role in the programs. In the course of a project's life, the community development workers may be the first persons to enter a community to gather data upon which to base the programs. They may play an active role in implementing such program components as mutual aid, self-help, income-generating projects, or group construction work. They might well be the last technicians to leave a community, arranging last-minute aspects of transferring responsibility over the project to community groups, and, of course, they often carry out postproject evaluations.

Community development is very important in assuring that people's wants, needs, and desires are embodied in basic housing programs. A community development unit can help achieve this by organizing community participation during the project formulation stage. Community development may also reduce project costs by urging participants to use mutual aid and self-help in project implementation. It can organize group work or individual household efforts to set up equity and counterpart resources to match external funding.

When community development is able to create a vibrant and active community spirit, it can facilitate coordination of public and private efforts. Often in developing countries, housing and basic urban services are the responsibility of many agencies. The jurisdictional, geographical, and personality conflicts among these agencies may be brought together by an active community development program that encourages "grass-roots government."

Finally, community development aims to facilitate the eventual turning over of projects to local governments and the local community. This requires development of group skills in community decision-making. Training programs are needed to develop local leadership and the mobilization of local resources. Community development seeks to encourage self-reliance in the continued operation and maintenance of basic services. Through skills training and encouragement of economic enterprises, community development may improve a community's economic base, thus ensuring that the community will be able to pay its way in the future with minimal outside support.

In the formulation and implementation of basic housing programs,

many housing agencies have discovered that they can ignore the people's wishes and resources only at their own peril. Housing programs that have attempted to "produce and deliver" housing units have ended up as expensive flops. The cities of developing countries are littered with the gutted and vandalized remains of projects that have been produced for the people but not with them. There are many beautiful architectural masterpieces that have remained unoccupied because they were unliveable. In contrast, there are ugly and festering slums that are dynamic and functioning despite repeated efforts to have them demolished. They are thriving human communities rather than aesthetically pleasing artifacts built by housing authorities.

Community Organizations

Conventional decision-making theory focuses on the individual, but among the urban poor the community is often a more productive unit. When engrossed in group action, the results are often greater than the sum of the individual acts. Fortunately for designers of basic housing projects, they are rarely afforded the luxury of a clean slate when planning for low-income clients. Whenever the poor congregate, they create for themselves complex networks of social interactions that provide the energy with which they accomplish common goals.

An important factor in community formation among the urban poor is their capacity to organize (some say to "overorganize"). In a study of Tondo long before the World Bank decided to support a community-upgrading project there, a survey indicated that in an area occupied by about 2000 families there were no less than 20 formal organizations, 12 of these legally incorporated bodies (Laquian 1966). Similar findings have been reported in other countries (Mangin 1970), with the role of community organization in "invasions" as well as in urban community development programs receiving special attention (Clinard 1966).

Participant observation has indicated that, even in projects in which people are individually drawn from various communities, community organizations sprout spontaneously. The social linkages evolve, influenced by such factors as physical proximity (next-door neighbours tend to become friends first); common interests (families with children get to know each other through the children); common characteristics (people speaking the same dialect, those originating from a particular hometown); and community activities (celebrating the fiesta is a major factor in enhancing community spirit in the Philippines). Even real or imagined threats to the community (eviction plans of the government, juvenile gangs from another community) can mobilize people to form associations.

All things being equal, the prospects for community development in a project are directly related to the presence of community organizations. The presence of organized groups makes it easier to achieve the people's participation in project design and program implementation and evaluation. The very fact that a leadership structure exists, even if it is initially antagonistic to the project, is a positive sign. Communication with the community is enhanced by organizations and mobilization of community resources is made that much easier by them. In general, it is easier to begin working with existing groups than to start organizing them from scratch.

Where people are already organized within a community, the prospects

for introducing an effective community development program might be influenced by the following factors: (1) prevalent family structures; (2) the neighbourhood's sense of community; (3) mutual-aid traditions; and (4) political partisanship. Each of these factors merits special attention.

Family Structures

Studies have shown that important decisions pertaining to migration, employment, borrowing, investing in a house, etc., are usually made at the family level rather than by individuals. The decision might even involve members of the extended family, which is alive and well in most Third World societies. Even in cities, where a tendency toward nuclear family formation has been observed, the extended family is usually found among the urban poor. In many slum/squatter areas, nuclear families often form the bases for community organizations because leaders often count on family members for support first.

At the other end of the family spectrum are those households headed by women. Community surveys in Zambia, Senegal, El Salvador, and Jamaica have shown that households headed by females make up one-third to one-fifth of the families in low-income communities. A typical situation is the prison farm squatter area in Spanish Town, Jamaica, where a survey revealed that 25% of the families there were headed by females (Stone 1978).

Households headed by women are closely associated with common-law unions. Studies have shown that such unions are highly unstable and that it is not unusual for a woman to enter into a number of such unions throughout her child-bearing years, often bearing a number of children by different spouses in the process. The fathers may or may not contribute toward the children's support, although a study in El Salvador discovered high rates of transfer income and gifts in households headed by women (Kaufmann and Lindauer 1980).

Countries where polygamy is practiced also tend to show a higher rate of households headed by females in low-income areas. This was found in a number of projects in Senegal, for example, where the traditional definition of a family had to be reformulated to make selection criteria for projects more applicable to local conditions.

Regardless of the reasons for the prevalence of households headed by women, the fact remains that they require special attention from project authorities. First, they tend to have significantly lower incomes than other families. Second, they are more likely to be renters than homeowners. Third, they have higher rates of intracommunity mobility. Fourth, the female heads of households tended to have low educational levels and high illiteracy rates. Finally, studies have shown that female heads of households have much lower rates of community participation, i.e., in the form of attendance at meetings or participation in mutual-aid work.

The combined effects of these observed characteristics of households headed by females were seen in a community-upgrading program initiated by the Jamaican government and the US Agency for International Development in the "yards" of Kingston, Jamaica.[1] A study of the yards revealed

[1]A "yard" is a Jamaican urban residential unit. It is usually an enclosure, round or rectangular, with about three or four houses in it. Renters in yards share common water taps, toilets, and kitchens but occupy individual rooms. In 1975, it was estimated that there were 50 000 yards in Kingston.

that most of the rooms were rented to women with families (Brodber 1975). Evaluation of the program revealed that community participation by women in upgrading efforts was very low because they were often too busy trying to earn some money or taking care of their children. The households' low incomes also precluded voluntary contributions in lieu of community work. There were practically no female heads of households on the roster of community leaders because formal marriage was often a prerequisite to social status.

Most important of all, the program evaluation indicated that households headed by women considered the upgrading program as being potentially inimical to their interests. They were afraid that improvement of the community would encourage landlords to raise rents. Some female heads of households did perceive some benefits in the cleaner surroundings, a more reliable water supply, or a playground for the children; however, they felt that such improvements would benefit landlords more and they feared that, in the long run, the improved property values would make the place more attractive to others and the competition for space would make it more expensive to live in the community.

Because of their tendency not to participate in community affairs, there is a tendency for female heads of families to be excluded or eased out of basic housing projects. This should be of great concern to project authorities because it limits the accessibility of projects to these families who require the most help. Rather than ignore the issue or sacrifice households headed by females for the sake of project efficiency, certain components designed specifically to assist the less able can be built into the projects. For example, job training in the informal sector, crèches and day-care centres, and guidance and counseling can be made regular parts of community development efforts. The community development arm, being charged with the social aspects of basic housing programs, needs to be particularly sensitive and responsive to the needs of disadvantaged groups such as households headed by women. Community development must foster equity and social justice because, otherwise, basic housing projects might end up helping those who already have much in life.

Sense of Community

Whether it is called "community spirit" or "community awareness," the perception among residents in an area that they share a common identity is a very important factor in a community development program. This sense of community may be gauged quite easily by indicators that include: (1) numbers and types of associations; (2) existence of formal and informal community leaders; (3) perceived or real boundaries of the community; and (4) perceived community problems.

In addition to determining the number of associations in a community, the designer of a community development program has to know the functions played by the associations, how long each has been in existence, and how effective they have been in achieving their goals. Community organizations are not usually active all year round — they may be dormant for some time and then suddenly get caught up in a frenzy of activities. Many of them might have very limited areas of activities. The important thing, however, is that each organization is an aggregation of individuals adhering to a com-

mon interest, and such organizations can become the building blocks of an effective community development program.

It might be misleading to assume that community organizations are set up primarily to further the community's interest. It is highly possible that the organizations are mainly reflections of community leadership structures. It is a common method in community development to "enter" a community through the existing leaders. In the Philippines, this means obtaining the cooperation of elected members of the *barangay* council. In Indonesia, this involves approaching the appointed members of local bodies called the *rukun warga* or *rukun tetanga*. In most instances, however, these leaders are representatives of the "establishment" and may not actually reflect the pattern of influence and power in the community. It takes careful participant observation and the cooperation of community informants to really understand leadership in low-income communities. However, this understanding is absolutely necessary if an effective community development program is to be fashioned.

It is important to know the perceived boundaries of a community because it reflects the extent of cohesion or fragmentation of the people's cognitions. One common method of obtaining this information is to include in a sample survey a question requesting respondents to describe the boundaries of the community. Some people may describe the community functionally, equating it with the area served by a primary school or health clinic, for example. Others might indicate physical boundary markers such as roads, canals, or railroad tracks. Still others may perceive communities in terms of the legal jurisdictions of existing organizations. Analyzing the perceived boundaries of communities will indicate to the community development planner the existence of communities within communities, the interlocking or overlapping functional and areal "jurisdictions" that formal and informal patterns of power and influence encompass. To the extent that these bits of information make the community more understandable, it becomes a sound basis for community planning.

To illustrate how varying perceptions of community boundaries can influence program effectiveness, it is useful to cite community participation in the "reblocking" process in Tondo. As described earlier, the main initiative in reblocking was taken by the people, who were organized into groups of about 20 families occupying the residential block to be improved. With the aid of housing agency technicians, families decided where the roads and other urban services should be; where the individual houses should go; and where community structures, such as schools and health clinics, should be located. However, when the individual block plans were finished, community planners found that they did not fit together very well — one block might have a road proposed up to a certain boundary but the group planning the adjoining block would place the road elsewhere. The community planners had to resolve these land-use conflicts among blocks by using the concept of the "super block," which outlined the road and service networks for four or five blocks. Based on the wider community perspective, the individual block planning groups were able to come up with more congruent plans.

The same scale of community boundaries may apply to the perception of community problems. Generally, families within a small area might have

a heightened sense of their common problems but they may not perceive the overall implications of such problems for the whole community. It is the task of a community development program to expand the group's perception of problems beyond the immediate confines of their concerns. There is a very strong tendency toward particularism in low-income communities and it is up to community development organizers to make sure that these tendencies are discouraged and that the welfare of the larger community be enhanced.

Mutual-Aid Traditions

An important resource for community development planners is the traditional form of mutual aid that is practiced in low-income communities in most developing countries. Such traditions as *bayanihan* in the Philippines or *gotong royong* in Indonesia have been mentioned. In other countries, however, there are traditions of mutual aid that are more directly related to house building that have been used by community development organizers in basic housing projects.

In East Africa, one of the most interesting mutual-aid traditions is the organization of *mbati* or "house-building" groups. In Kenya, Tanzania, Uganda, and other countries, these groups are traditionally composed of women who pool their resources and skills to help each other build houses. The members of a group contribute specified sums of money to a common fund. They carry out income-generating activities, such as tilling communal gardens, raising animals, or making handicrafts, and earnings from these ventures are added to the common fund. When there is sufficient money, each group member takes her turn in using the money to purchase materials for the house. The women contribute their labour to the house-building effort as well. Fund raising and house building are carried out until all members of the group have had their turn and are properly housed.

In recognition of the usefulness of this tradition, the housing authorities in Nairobi have organized building groups in the Dandora project under the supervision of the Community Development Section of the project. Two types of building groups were formed: those composed of families from a particular ward prior to coming to Dandora, and those composed of project allottees who live close to each other in the same new neighbourhood. In both groups, it is interesting to note that male members have been accepted in what has traditionally been a female activity.

The building groups have been officially recognized by the project authorities. In fact, they have to register under the Societies Act, a mandatory statute. Formal registration is very important because people contribute about Sh50/month to the group and pay a membership fee ranging from Sh5–56 (registration helps assure accountability for the funds). Project management also releases housing loans to the whole group, leaving the determination of whose house will be constructed first to the group members (MEDIS 1977).

To date, experience with building groups in Kenya has been most encouraging. Almost all of the groups have raised considerable sums of money and members' houses have been built cooperatively one by one. Because it is prohibited for any member to drop out until each member

has a completed, minimum two-room standard house, housing consolidation has been accelerated. The Community Development Section has found that very little intervention is required to supervise building groups. Because the financing and construction procedures have evolved over centuries, each member knows what is expected and the group's work goes on with few problems.

Political Partisanship

An important consideration in low-income communities is whether community organizations are able to work harmoniously together or not. Partisan politics can become very serious in small communities because people live practically in each other's pockets. In Jamaica, for example, most of the violence and physical damage during the 1980 elections was centred in slum/squatter areas. Local leaders of both the People's National Party (PNP) and the Jamaican Labour Party (JLP) were killed in the slums, had their houses burned, and had their families terrorized. More than a year after the elections, the scars of partisan strife were still not healed. In a newly built housing project in Montego Bay, opposing families in 1981 literally showed their partisan colours by painting their doors green (the PNP colour) or orange (for the JLP). Only the timely intervention of the project manager, who ordered that all doors be painted a nonpartisan brown, prevented more serious troubles from erupting.

Partisanship, of course, may take pro- or antiestablishment forms. The history of community participation in Tondo is rooted in the activism of ZOTO (Zone One Tondo Organization). Founded in 1970 by religious activists who trained community organization workers in confrontation tactics, ZOTO was originally composed of 39 existing organizations that banded together to pressure the government to involve the people in the planning and implementation of housing programs. Much of ZOTO's efforts were focused on the single issue of land, taking up the demand of the community that land in Tondo be sold to bona fide residents at P5/m^2. However, this was simply a way of concentrating the people's attention on an important issue. The main goal of ZOTO was to raise the consciousness of the poor to the extent that they would have the self-reliance to plan and develop their community themselves.

In the tense premartial law atmosphere that prevailed in Tondo in the early 1970s, the confrontational tactics of ZOTO eventually led to violence. When ZOTO followers set up a "human barricade" to protest a road construction project in Tondo, the police were called in and in the ensuing riot one student was killed. Eulogizing the student, ZOTO wrote (Laquian 1976):

> He died because he protested against the government who deprived Tondo residents of their right to participate with government planners to build the area. Outsiders must consult the people and give them the necessary information if they are sincere in helping the people make a beautiful and better community.
>
> ZOTO feels that the people on the picket lines fighting for an issue against the distorted plans of the government must be heard. They must be given enough chance to present their demands across the bargaining table. Democratic negotiations and processes must be used instead of bullets and force.

Under normal times, the right to participate and be heard in the formulation of community plans is taken for granted. It is with some shock, therefore, that one realizes that lives can be lost when exercising that right.

With the declaration of martial law in the Philippines in September 1972, the activism of ZOTO and other similar organizations was curtailed. That year, the Philippine government decided to organize the *barangay* councils as legitimate units of government at the community level. About 200–500 families in a locality formed one barangay. These families elected the members of the council annually, with each council member being in charge of a specific function, e.g., health, education, protective services, livelihood. The barangay councils were also given such functions as the distribution of rice at lower prices, registration of motor vehicles for rationing gasoline in times of shortages, and preparation of the roster of voters. People were organized into barangay "brigades" and trained to assume such functions as fire fighting, conducting traffic, keeping the community clean, and controlling riots. The barangay, as the lowest unit of government, was even given limited taxation powers to raise resources for local projects.

The growth of the power of officially sanctioned barangay councils in Tondo limited the popularity of ZOTO and other activist organizations. Since the National Housing Authority decided that it would deal officially only with barangay councils in matters affecting the basic housing program, most people have kept their distance from the activist organizations. At the time of writing, considerable activism existed in Tondo but it was somewhat muted. This is not all due to repression, however, the possibility has been mentioned that people are quiet because they have achieved what they wanted. Land in Tondo has been sold at the price demanded by the people. The wishes of Tondo residents are carefully heeded in the formulation and implementation of programs by the National Housing Authority (NHA). Tondo has changed, and this is best seen in the new houses, new roads, and new community centres that have sprouted in the area.

It is almost impossible to conceive that all of these achievements in Tondo would have been possible without the activism and sacrifices of ZOTO leaders and followers. Although political partisanship became the irritant in community–government relations in the beginning, the current high level of community participation in Tondo is due to this background. It is safe to say that, without ZOTO, Tondo would not be at the developmental stage it is at now.

Community Participation

Conditions existing in project areas as described in the previous section might exert important influences on community development programs, but the most important factor in the success or failure of such programs is the motivation of the housing agency in encouraging community participation. A housing agency that truly desires to elicit community participation must sincerely believe that what the community contributes makes a real difference in the outcome of the project. Inviting participation simply to legitimize prior agency actions will simply not do. Neither will people tolerate manipulative "public relations" approaches that seek to

make the agency look good by providing some semblance of community support.

Under normal circumstances, people do wish to participate in basic housing programs. A 1979 survey in Tondo found that 84.5% of respondents felt that consultation by the National Housing Authority with the people regarding reblocking was "very important" and 12.7% said it was "important" (NHA 1980 a, b). Despite the long history of conflict between housing authorities and the people, only 25% of respondents felt that "consultation between the people and NHA would not make any difference in the programs." In fact, 65% of the respondents said that they were "very satisfied" with their interactions with NHA personnel and 23% said they were "satisfied."

An important aspect of participation in Tondo was the fact that people seemed to know exactly where their inputs mattered. When asked what aspects of the program they wanted to be consulted on, the respondents cited the following in order of importance: (1) sizes of residential plots, (2) plot distribution procedures, and (3) land-use plans for the block. Although most people agreed that these matters involved highly technical considerations, they felt that they affected their plight directly and that the final decision on these matters should be theirs.

An important indicator of community participation is the proportion of people who attend community meetings. In Tondo, about 96.7% of the heads of families regularly attended meetings. It was noted, however, that 65% of those in attendance did not actively join in discussions. They seemed content with "following the leaders" and lent support when called upon. It wasn't that they were not interested in what was going on, many just felt that their leaders shared their views and that they could be trusted to fight for what the community wanted.

Participant observation studies of community meetings noted the importance of "bandwagon effects" during discussions. In Tondo, one of the most important decisions presented to the community assemblies was the reblocking option. Plan A was a reblocking process that would disturb houses and community structures the least — sizes of plots, location of houses, and alignment of streets and services would be carried out in such a way that no more than 25% of the structures would be disturbed. Some participants called this the "as is, where is" option.

Plan B would result in the dislocation of 26–50% of the structures in the community. Plan C, on the other hand, was the most drastic of all. It would restrict sizes of lots to a minimum of 30 m^2 and a maximum of 96 m^2. It would realign streets and move houses around so that more than 50% of the structures would be dislocated. Because this rationalization of land use would not be able to accommodate all families in the community, the plan would result in the relocation of more than one-fifth of the households to an overspill area 3 km away.

Although people were given ample time to discuss these options, researchers observing the proceedings found that people made up their minds rather quickly and voted for plan C overwhelmingly. They knew that this option would create the most dislocations; they also knew it would be the most expensive. However, following the perception of their leaders, the people felt that "equitable distribution of plots" was the most important thing to them. They also saw the grid pattern of houses and streets and liked the "modern subdivision" look that would result from plan C.

Finally, people felt that plan C would clarify boundary lines between plots and would reduce interfamily disputes, which often created conflicts and even violence.

These were all very logical reasons for choosing plan C. Observing the meetings, however, what seemed to have prompted a quick decision was the open and early support given by the leaders of the community to the plan. Although technicians of the National Housing Authority tried to be impartial, it was quite obvious that their technical and professional personnel also favoured plan C. Most people went along with the leaders and NHA personnel because their preferences seemed to have coincided with the choices of the leadership.

The Tondo experience, therefore, showed that when the people insist on having their voices heard in decision-making, a housing agency would do well to listen. The principle that the people know what they want and that a housing agency should clarify the technical aspects but leave the final decision to the community is most valid in basic housing programs. Opening up community participation channels would help the agency and community make the proper choices. True community participation requires mutual respect between the agency and the people and is based on the trust that both parties aspire for the best for everyone concerned.

Project Implementation

The participation of people in the implementation of housing programs has been discussed in detail in the chapter dealing with mutual aid and self-help. As mentioned in that chapter, one of the motivations for eliciting participation in the project implementation process is to reduce costs. It has been argued that if people use their own labour in construction; are allowed to schedule construction activities according to the availability of their time; are encouraged to assist each other so that the skills of the people can be used optimally; and are given maximum freedom in choosing their own house designs, building materials, and financing scheme preferred, overall project costs could be reduced.

Although cost reductions are important, the people's participation should be seen as accomplishing much more than cost reduction alone. Country experiences have revealed that when project participants are allowed to design their own houses, they generally come up with structures that are more responsive to their needs and are made of materials that they prefer and are within costs that they can afford. What is of even greater value, however, is the commitment that people make to their home, neighbourhood, and community. Because the plans and designs for the project are their own, they are more willing to allocate resources and undergo sacrifices for them. Whatever problems occur, the people cannot blame them on project management or other scapegoats. Thus, they are forced to confront these problems and find their own solutions.

Because the people's participation in housing implementation is so desirable, there is sometimes a tendency on the part of housing agencies to use it (as in El Salvador where families must participate in mutual-aid work to qualify for project plots). Overzealousness in such matters, no matter how well motivated, can make life more difficult for project participants. It can lead to paternalistic programs that, in effect, tell people that

the housing agency knows better — that mutual-aid work is "good for them" — and that they must follow what the agency wants or they won't receive the benefits. The fact that one-third of the families in some Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) projects dropped out before completing the mutual-aid work was indicative of community reactions. Research findings that noted overrepresentation of people in the informal sector and those renting accommodations because of low income among the dropouts were other indications that the mutual aid requirement worked against the interests of some whose housing need could have been answered if only the agency was a bit more flexible and less self-righteous.

Interagency Coordination

One of the problems in basic housing programs is the multiplicity of efforts carried out by various agencies. The common bureaucratic solution to this problem is coordination of all agencies concerned by a superior level of government. This works with many programs but, unfortunately, housing is an endeavour that, by its very nature, involves the efforts of many agencies. Even a senior ministry, such as the Ministry of Housing, is rarely in a position to control all the factors that enter into a basic housing project. Other functional agencies, such as those providing water, electricity, education, and social welfare, have their own authority and power. They might agree to coordinate their efforts with, but will resent being coordinated by, the housing ministry.

One way of achieving interagency coordination in a basic housing project is to attempt to enforce coordination from below rather than impose it from above. A common factor among all agencies' efforts is that they eventually take effect in specific areas. This can be the project site or smaller communities and neighbourhoods within the site. The ultimate units in the exercising of authority are the clients and alleged beneficiaries of agency programs. What is more logical, therefore, than the coordination of various agency efforts at the level of the service users themselves — the community?

If communities were organized, they would be in a strong position to coordinate agency efforts by indicating what they want, what actions they will support, and what they will fight. This type of coordination requires community unity because it is also quite common for agencies to pursue "divide and conquer" policies. In low-income communities, it is usual to find public agencies developing specific client groups to further their ends (the education ministry would have Parent–Teacher Associations; the police commission would have "community-relations officers;" and the Social Welfare Agency would have Youth Clubs, Mothers' Clubs, etc.). If members of basic housing communities allowed this fragmentation, they would be mere pawns in interagency rivalries. However, if the people themselves set up their own local organizations, they can influence developments at the grass-roots level and bring about coordination at the community level.

It is one of the main functions of the community development unit in a basic housing agency to develop a community-wide organization that would not only pursue what the people want but would also attempt to

achieve interagency coordination as well. In most instances, this could be a single umbrella organization that encompasses many other organizations. Such, for example, is the barangay council in the Philippines, the local branches of the United National Independence Party (UNIP) in Zambia, or the mutual-aid groups in El Salvador. These organizations have their own goals but are also composed of individuals representing various interests with specific goals. Clarification of community interests at the local level by these organizations would be of great help in coordinating the efforts of government agencies dealing with the community. The unity of people through their organizations can help public agencies determine how they can best support the activities of the people at the local level. It would also influence them against imposing their own programs on the people.

Community Development Costs

One criticism leveled against community development units is that they entail considerable expense to set up and make operational. Aside from salaries and wages, there are training costs, expenses for information and publicity campaigns, funds for community assemblies and meetings, and transportation costs. The output from these units, however, is not easy to determine. The engineering section can construct roads and build houses, and the finance section can collect amortizations and other payments, and both these can be quantified. What the community development unit achieves, however, is hard to identify and almost impossible to quantify; the costs for the unit, on the other hand, are not.

To appreciate the role of community development in a basic housing program, it might be instructive to think about what would happen if such a unit did not exist and the people's wishes were not considered in the formulation and execution of the housing program. In the Tondo project, an impressionistic attempt has been made to do just that. What were the "costs" of previous efforts that did not take the people's wishes into consideration?

One definite cost would have been the enormous sums spent for police, army, and intelligence service operations mounted to suppress activism in Tondo. Although many such operations entailed the use of existing personnel, a number of large-scale efforts to quell riots and demonstrations demanded extra resources. It is possible that such expenses could have been avoided if a genuine effort to elicit community participation in Tondo had been launched early enough.

There were, of course, the costs of activities that could not be pursued because the people objected to them. There were the costs to people whose houses were demolished, who were relocated to other areas, and who lost jobs because of such dislocation. Also, there were the leaders who were arrested, forced to go into hiding, or were killed.

How much did the years of failure to coordinate activities with the people cost? Presumably, one can figure out the monetary value of person-months spent by the authorities pacifying activists in Tondo. It should also be possible to establish the cost of the military and police operations incurred in raids, massive arrests, and riot control. Because there were estimates of how many Tondo residents joined in marches and demonstrations, one

can determine the person-months of efforts devoted to such activities. The opportunity costs of such activities should amount to enormous sums.

One can argue, of course, that institution of a community participation process would probably not have prevented the problems cited above. Perhaps, but it would not have done too much harm, and it might have helped channel people's energies toward more productive ends, as one of the main determinants of overall project costs is the cooperation or resistance of people to a basic housing project. If people will not cooperate and absorb most project costs themselves, they will have to be shouldered by the government. To the extent that people actively resist government efforts, total project costs would correspondingly increase.

PROJECT IMPACT 8

Waiting for the bus, Dakar, Senegal. (Outlying area projects may run into transportation problems.)

The research design used in the evaluation studies supported by IDRC and the World Bank posed project interventions in community upgrading and sites and services as the independent variables and the effects and impacts of such interventions as the dependent variables. As indicated already, the interventions included providing project participants with a housing site, water, sanitation, community services, and building materials. It was expected that these interventions, singly or in combinations, would have detectable effects and impacts on the following factors: income and expenditures, employment, housing quality, access to basic services, health, migration, and land values in the project and adjacent areas.

The researchers recognized, of course, that various types of project impacts would be difficult to trace directly to specific interventions. Intervening variables were expected to influence the nature and direction of impacts. Combinations of various interventions might also cloud project effects. Despite these methodological difficulties, however, it is still important to sort out the perceived effects and impacts of project interventions because the extent to which these interventions benefit or adversely affect the lives of project participants is an indication of project usefulness or effectiveness.

Income and Expenditures

One of the fears in basic housing projects is that a family's expenditures will rise because of increased housing construction costs and higher service charges at precisely the time that incomes are falling because of disruptions in employment brought about by the housing project. Affordability levels are carefully estimated in project design but, as seen in World Bank projects, estimates of what proportion of household income families can devote to housing can range from 5–50%. This wide range might be attributed to varying definitions of income, as well as types of expenditures involved.

To determine the impact of participation in a basic housing project on income flows, a longitudinal study of 526 families was conducted in El Salvador from 1976–1980. The families were divided into an "experimental group" of 197 families who lived in Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM) projects and 329 families living in slum/squatter areas as a "control group." Income figures for both groups were gathered in 1976, 1979, and 1980 to find out whether incomes increased or decreased with time. The study showed that incomes in both groups increased with time (by about 70% among project participants and 75% among non-participants). There was no evidence, therefore, that participation in the project adversely affected income flows among experimental group families (Bamberger et al. 1980).

If basic housing projects do not adversely affect income, is it possible that they increase housing expenditures to the point that families have to cut down on food, medicine, and other necessities because they have to devote more resources to housing? The same longitudinal study found that expenditures for housing did increase among project participants: from C3.95/person in 1976 to C5.7/person in 1980 (an increase of 44%). However, expenditures for food among participants were not significantly different from those of nonparticipants. Expenditures for medicine and for transport were also not significantly different between the two groups.

The income and expenditure studies in El Salvador covered a 3-year period. Similar studies were conducted in the Tondo project in the Philippines but attention there was focused on the period of "maximum stress," i.e., the 3 months during which the families had to move from their original site to a nearby plot designated in the reblocking program of the National Housing Authority (NHA 1978d).

The Tondo studies revealed that within the 3-month period average family expenditures rose by 170%. Of the amounts spent, about 64.9% went into construction and repair of houses. Income from regular employment decreased from an average of P512.35/month to P339.12/month. The decrease was due to the fact that some family breadwinners had to be absent from work to devote time to construction and repair of their homes. Because most people worked in the informal sector or in jobs where they had no vacation or sick leave, if they didn't work, they didn't earn any money.

An interesting finding in the Tondo study, however, was that the total income of participant families increased by 51.9% over the period. In the month before the actual move, relatives and friends of the families contributed cash gifts and transfer payments to such an extent that 44.2% of total family income was made up of such gifts and contributions. Despite the decrease in income from regular employment, therefore, families still had net increases in income because of gifts and contributions.

During the 3-month period of maximum stress, the Tondo study found that families were overspending (expenditures made up 108.6% of their average total income). Overexpenditures were met by borrowing, either from the building materials loans program of the NHA or from private sources. The heavy spending for house construction lasted about 4 months from the time the family moved into the new house. The proportion of income spent for building materials and labour during this period ranged from one-fifth to one-third of total expenditures. After the 4th month, however, there was a decrease in housing expenditures, rarely going beyond 2% per month. The expenditure patterns revealed, therefore, a fairly rapid rate of housing consolidation, after which housing expenditures leveled off to a more manageable rate.

As in El Salvador, the Tondo study analyzed the proportion of income devoted to food. On the whole, the amounts spent by families on food increased because it is a tradition among Filipinos that "volunteers" who assist in building or improving a house are fed although they are not paid. As a proportion of total expenditures, however, food expenses declined sharply from around one-third to one-quarter of total expenditures. This pattern lasted for about 2 months after the move, after which it stabilized. The decline in the proportion of food expenses, of course, was a result of the high proportion of expenditures for housing.

As expected, patterns of incomes and expenditures differed significantly between families with relatively low and relatively high incomes. Among Tondo families classified as poor, 65.5% of total expenditures went toward food (compared with 22.6% for higher income families). Poorer families also spent considerably more for services (water, electricity, and fuel accounted for 6.1% of expenditures among the poor, whereas richer families spent only 3.9% of their income for such services). Richer families spent proportionally more for house repairs and construction, educational expenses, and leisure. The proportion of total income saved over a 12-month period was 13.0% for poorer families and 52.6% for richer families.

Studies of incomes and expenditures in Zambia indicated that among a sample of families in Lilanda community, about 38% said their income improved after the project, 35% said their incomes were lower, and 27% said there was no significant change in their incomes (Sanyal et al. 1981). After settling down in the community, in fact, about 38% of the families surveyed said that their expenditures for housing had decreased. Similar studies in George community indicated that living in the project had not reduced expenditures on food and other basic necessities.

Employment

Project interventions to improve employment in basic housing projects have taken the form of absorbing workers in construction, encouraging people to engage in mutual-aid and self-help work, setting up sites for industries and commercial establishments, giving out small business loans, and providing technical assistance. Project designers recognized early the disruptive effects on employment of sites-and-services projects. There is now a strong tendency to favour community upgrading because it does not dislocate people.

Contrary to common expectations, unemployment in slum/squatter areas has not been that high. In a study of three communities in Lusaka, unemployment rates were 1.3% in Matero, 2.4% in Lilanda, and 2.7% in George. In Lilanda, about 92.4% of total family income came from wages and salaries, whereas the percentage in George was 93.4%. Other members of the family, in addition to the main breadwinner, also contributed to family income. In Lilanda, 4.6% of family income came from part-time work.

Spouses and other members of low-income families in El Salvador also contributed significantly to family income. In the 3-year study comparing families who were participants in FSDVM projects and those who were not, it was found that the employment status of the main breadwinner did not change much with time but the employment status of spouses and other family members did. In general, more spouses and other family members from participant families continued to work than in families in the control group. The contributions of such family members to total family income were significant. It was not clear, though, if the employment of spouses and other family members was forced upon them because of the need to pay for project costs or whether the project sites simply provided them with greater opportunities for employment.

Concerns have been expressed by some that the increased "formalization" of life in basic housing projects would somehow disrupt employment in

the informal sector. For example, relocation to sites-and-services projects might dislocate hawkers and vendors and disrupt the delicate seller–buyer relationships based on mutual trust. Quite a bit of "illegal" economic activity takes place in slum/squatter areas, and this would probably be better restricted in project areas. Relocation to project sites might also make travel more difficult and expensive, discouraging some vendors, load carriers, and other people who work in downtown crowds from regularly engaging in such employment.

Studies in the Dandora sites-and-services project in Nairobi, however, indicated that informal selling and even "illegal" economic activities (brewing and selling of beer and other intoxicants) did not stop because of relocation to the project. In the Tondo project, the infusion of money into the area from the construction and other activities even improved sales of *sari-sari* stores and other vendors. New trades involving buying and selling of used and new building materials sprouted in the area. Some family members even found gainful employment in construction.

For some reason, more formal project efforts to improve employment in basic housing sites have not fared well. Employment in construction handled by large- and medium-scale contractors has been less than expected. Even mandatory requirements stipulating that only people from project areas be hired by contractors, as in Jamaica, have not had satisfactory results. Setting up industrial or business sites has not attracted as many entrepreneurs as anticipated, mainly due to service problems. Establishing the availability of small business loans has taken time, and in some countries there have been high default rates. Even experiments with cooperatives have not created the productive results expected.

Perhaps the unsatisfactory results cited above merely indicate the difficulties involved in trying to put vitality into the informal sector by formal means. Project experiences have shown that there is a tendency to "overmanage" programs when they are handled bureaucratically. The lengthy and cumbersome procedures for processing and servicing small business loans have been mentioned elsewhere. The overly academic and organized nature of training programs have also been cited. Maybe the best that basic housing projects can do is to reduce the disruption of normal informal business activities and make sure that project activities do not artificially hinder economic processes. Perhaps the task of encouraging informal sector employment should be allocated to other groups (in the private sector, if necessary) who are better at doing this. This is already being done in some Philippine projects. It may be worth trying in other countries.

Housing Quality

The opportunity to own a house is probably the most important motivation to project participants in basic housing programs. Although the rate of home ownership in slum/squatter areas is higher than most people would expect, home ownership in such areas is usually beset with insecurities arising from the illegal nature of land occupancy, possibility of fire and other calamities, and general lack of services. Basic housing projects provide security, legality, and better services. These benefits entail higher costs but families know that they are getting more for their investment.

Careful evaluations have been conducted of the quality of housing in projects compared with that in slum/squatter areas. In El Salvador, the extent of crowding in rented mesones, illegal colonies, squatter areas, and FSDVM projects was studied in 1980. Using the number of persons per room as an indication of crowding, illegal colonies were the least crowded (2.0), followed by FSDVM projects (2.5), mesones (3.0), and tugurios or squatter areas (4.0). Measuring the roofed portion of livable areas, illegal colonies were also better (14.3 m^2/person), followed by FSDVM projects (9.0 m^2/person), mesones (8.3 m^2/person), and tugurios (6.0 m^2/person) (Bamberger et al. 1980).

In addition to the improvement in the quality of accommodations in a basic housing project, once in the project, there is a strong tendency for housing to improve with time. This is seen in studies in Zambia where indicators of crowding were measured in an earlier period (1975/1976) and some years later (1979/1980). The study showed that the percentage of households in which five or less persons were living together increased from 66.0% in 1975/1976 to 77.2% in 1979/1980 (Sanyal et al. 1981).

Not surprisingly, an evaluation of the quality of housing by the project participants themselves has been most positive. In a survey of Lilanda households, 92.7% of respondents said that the quality of their house was good, 0.8% said it was bad, and 5.7% rated the quality of their house "in between" the two extremes. When the same sample in Lilanda was asked whether the quality of their housing had improved or not 85.2% felt that it had improved, 2.5% felt it was worse, and 12.3% felt that it had not changed.

Another indicator of improved housing quality is the type of building materials used. A comparative study made in Tondo in 1978 and 1979 showed that 17.3% of the houses were made of salvaged or scrap materials in 1978 and only 6.9% of the houses used the same type of materials in 1979. In 1979, about 22.6% of the houses were built from a mixture of light and salvaged materials and another 27.7% were made of light materials. In 1978, 44.2% of all houses were made of light materials. The greatest improvement was in the number of houses made of mixed (light and strong) materials, which rose from 27.2% in 1978 to 34.5% in 1979. The percentage of houses made of strong materials declined from 11.3 to 8.3%, but this was attributed to the fact that the reblocking process resulted in the demolition of some houses and it was taking households some time to consolidate their homes. Observations in Tondo in 1981, although not based on scientific sampling, give the impression that houses made of strong materials now predominate in the area (NHA 1980a,b).

Access to Services

More important than physical improvements, as a measure of housing quality, has been increased access to basic services by families participating in basic housing projects. In almost all countries evaluated, improved access to services was noticed.

In El Salvador, service conditions were compared among three types of settlements: mesones, illegal settlements, and squatter areas. The worst conditions were found in squatter areas, where 40.8% of the households relied on rivers or open wells for water, 83.5% used pit latrines or no toilets at all, 78.4% used gas or oil for lighting, and 19.6% even used candles.

Conditions were a bit better in rented mesones, where 100% of the households had access to communal water supplies or could buy water from vendors, 68.2% had communal toilets, and 86.1% could use electricity for lighting. Illegal settlements had even better access to services in that 45.2% had individual water connections from a public water supply source, 15.0% had connections to public sewers, and 79.3% had electricity for lighting. Compared with FSDVM projects, however, all three types of settlements mentioned above had inferior access to services as water, sanitation, and lighting were provided in all project homes (Bamberger et al. 1980).

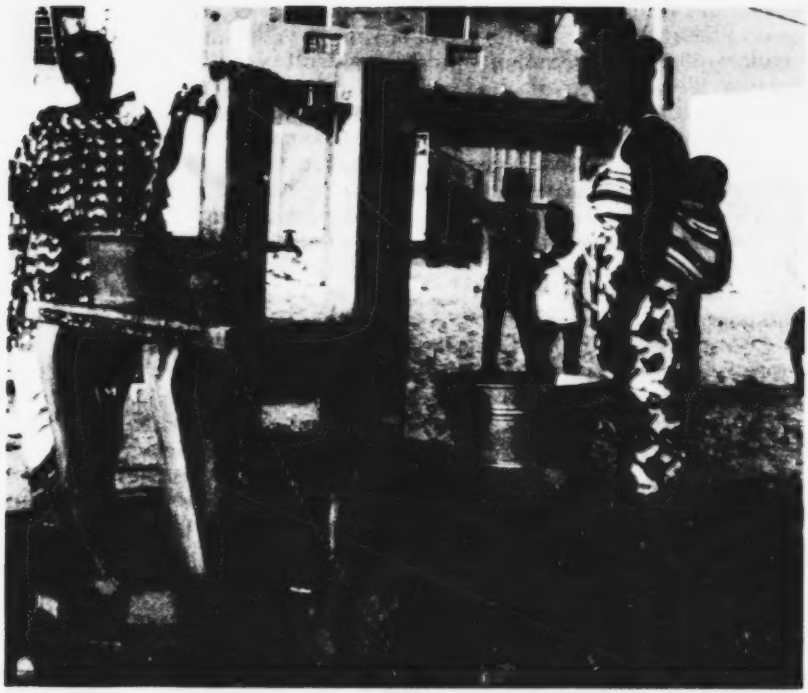
Using the mean distance people have to travel to avail themselves of services, the El Salvador evaluation revealed that families in FSDVM projects had to travel the least to get to schools, public telephones, playgrounds and parks, and the electrical company's offices. Families living in mesones had better access to medical facilities, public transport, and markets, and those families living in squatter areas had the best access to their places of work. Illegal settlements, because they tended to be at the city's periphery, had the worst access to services in terms of distances from them.

In the community-upgrading project in Tondo, the major project impact has been in improvements in sanitation and drainage between 1978 and 1979. Within the year, the proportion of households using water-sealed toilets rose from 38.5 to 45.8% and the percentage of families using pit latrines decreased from 8.8 to 4.0%. In low-lying Tondo, where flooding was an annual occurrence in the past, the proportion of houses with covered drains rose from 14.8 to 27.2% and the percentage of houses with no drainage system decreased from 37.9 to 19.4%. Unfortunately, despite the installation of water connections and electrical lines to most houses, the inability of national agencies to supply water and electricity to Tondo meant that no detectable improvements in services took place during the year. This lack of water and electricity was behind the dissatisfaction with services voiced by Tondo residents in late 1979 (NHA 1980a,b).

Access to water has been the most notable improvement in services to Zambian project participants. In surveys of two communities, it was found that whereas before only 14.3% of the households in the project had their own water tap, 98.0% of the households in Matero now had their own tap. In Lilanda, 98.4% of the households had access to shared water taps. The proportion of houses relying on open wells for water had been reduced to insignificant proportions. In George community, 97.0% of the households had shared water taps as a source of water.

When asked to evaluate service conditions in their community, households in Lilanda responded as follows: 67.2% said access to water had improved, 16.4% said that there had been no change, and 16.4% said access to water was worse. With respect to health services, 9.0% said they had improved, 32.8% said that there was no change, and 58.2% said they were now worse. Public transport was also criticized, with 5.8% of the households saying that it had improved, 43.0% said that there was no change, and 51.2% said it is worse. Because of the wider plots and more space in the new project, 63.3% of the households said that access to gardening had improved, 28.3% said that there had been no change, and 8.3% said that conditions were worse (Sanyal et al. 1981).

In general, basic housing projects succeeded in improving access to services for the project participants. In some instances, however, the improved services have suffered from the inability of other agencies to



Public faucets are crucial to a project's success, Senegal. (Urban services are often more important than housing.)

meet their obligations, resulting in expressed dissatisfaction with services from the participants. Rates of dissatisfaction with services have been higher with sites-and-services than upgrading projects. This has been due mainly to the location of such projects in urban peripheries and difficulties in extending services to such areas.

Health

Various interventions such as improved water, drainage, garbage collection, and construction of health clinics should improve the health conditions of project participants. However, improved health is extremely difficult to trace to specific interventions. In almost all projects, sharp declines have been observed in such ailments as gastroenteritis and respiratory diseases. However, even sophisticated statistical techniques are unable to establish the relationship between such improvements and project interventions.

Methodological difficulties, however, have not deterred project authorities from introducing innovative health approaches in project areas. In addition to improved water, drainage, toilets, and garbage collection and disposal, experiments have been carried out in health care administration and environmental sanitation. In projects in the Philippines, community-based health and family planning workers have been introduced

in low-income areas to augment the efforts of clinic-based, largely curative health professionals and technicians. In Indonesia, community organizations of women and youths have been set up to carry out community clean-up campaigns and emphasize environmental sanitation. Nutrition education, school feeding programs, and cooking classes have involved mothers and children in Jamaica. Health programs in most projects have stressed preventive rather than curative programs, environmental rather than disease aspects of health, and long-term rather than immediate health needs.

One difficulty with assessing the health impact of basic housing projects is the fact that evaluation of project impact has been going on for only 2–3 years, whereas developments in health take a much longer time to be perceived. If present trends continue, one can expect greater beneficial health results from basic housing projects. However, it seems a bit early to establish the relationships between improved health and project interventions at this time.

Migration

For years, one of the arguments against basic housing programs was the fear that improved housing and services in cities would only encourage more people to migrate from rural areas. Like health, migration is extremely difficult to assess because it needs a longer time frame than the 3 years that the projects have been evaluated to clearly indicate its impact. It is possible, however, to identify certain aspects of migration and housing at this time, although definite relationships are difficult to establish.

Project authorities point to low turnover rates (usually less than 5%) as proof that migrants are not being attracted to basic housing projects. However, this is of limited usefulness because most recent migrants would probably not be accommodated in projects. They would be more apt to take up housing accommodations in older, more established slums where rents are lower or in new squatting areas still undetected by the authorities. It is this realization, in fact, that prompted Zambian authorities to demolish old shanties vacated by project participants and accelerate housing construction in the projects so that families could move to the new sites faster.

One of the strongest arguments presented against the relationship between housing and migration is the well-known model of Harris and Todaro that suggests that rural–urban migration is due to the real and perceived differences between incomes in rural and urban areas and not to housing and urban service differentials. Surveys in Zambia seem to lend credence to this theory. When asked why families had come to Lusaka, 71% of the respondents in George and 91% in Lilanda answered "to seek employment." Less than 3% cited better housing as a reason for migration (Sanyal et al. 1981).

Another factor cited to counter the charge that projects encourage migration is the finding that more project participants are old migrants or original city dwellers. About 63% of the respondents in George arrived in Lusaka before 1970 (the proportion of Lilanda respondents was 64%). In a survey of two communities in the Philippines, it was found that 57.2%

of the residents in Barrio Escopa had lived in the area for more than 10 years and 30.6% of the residents in Bagong Barrio had also lived in the community for more than 10 years (NHA 1977).

Despite the inconclusive evidence that basic housing projects might tend to encourage migration, a number of strategies are now being introduced to counter this possible effect. Thus, more recent sites-and-services projects are being set up in small cities and towns instead of being concentrated in very large capital cities. More recent projects are also smaller and less visible, organized to fill the interstices between large developments, and provide housing as close to employment areas as possible.

To date, the number and magnitude of basic housing projects is still too small to exert a dominant effect on migration. If they have any impact, it would be to siphon off families that are relatively better off to the improved project sites. Although project designers have attempted to come up with housing that would be affordable to even lower income groups, there is still a tendency for project units to go to families with relatively higher incomes. A more important question that should be raised, therefore, is what happens to the sites and shelters vacated by those who move to project areas. Are they occupied by older residents in those areas or by new arrivals?

One thing that policymakers often forget is that rural–urban migration is not, in itself, bad. Much of the vitality of cities is due to the influx of migrants and this positive impact will continue as long as progressive migrants continue to come. In view of this, a matter for greater concern is the effects on migration of policies that allow urban shelter and services to deteriorate. If slum and squatter areas grow in numbers and conditions in these places become worse, the rural people that will be encouraged to move to cities will be those who would find no difficulty living in these deteriorating areas. Rather than discouraging migration, therefore, policies of do-nothing and neglect would encourage migration. Even worse, it would attract to the cities less desirable people from the rural areas, i.e., those who would fit well into deteriorating slums.

Land Values

Early sites-and-services projects, such as the Pikine project in Senegal, were set up to influence the spatial development of cities by providing serviced sites where they were needed. The construction of roads, provision of urban services, movement of people to the area, and construction of houses provide tremendous boosts to land values in the project and vicinity. This increase in land values also takes place in community upgrading, where the rationalization of land use, decongestion of communities, introduction of better services, and improved houses all contribute to higher property values.

In Zambia, the development of the peripheral city sites has created a great demand for transportation between these sites and the city. The demand has been met aggressively by private entrepreneurs who took advantage of the improved roads to the projects. Transportation improvements, in addition to other basic urban service improvements, have created

increased economic activities in the project sites. As a result, not only sites near the projects but also those between the city and the project area have increased in desirability and value.

The increases in land values both within the projects and in the surrounding areas have triggered two policy concerns: first, would they increase the desirability of project sites to the extent that middle-income and lower-income families would buy out the original allocatees and, second, would it be possible to "recapture" some of the higher values created by the projects so that government resources could be improved?

Regarding the first issue, there is evidence in the Philippines and Kenya that basic housing projects are becoming very attractive to investors, so much so that, although buying and selling of project plots is illegal, a few houses and plots have been the object of such deals in the past. This is not a surprising development because projects in these countries are located in choice areas; participating families have been the beneficiaries of attractive support and subsidies; and the houses, to the extent that they can be developed (or rented, as in Kenya), could provide extremely good returns to investments.

To date, the main response to the problem of buying and selling plots has been prohibition (in both the Philippines and El Salvador it is illegal to sell a plot within 5 years of the original purchase date). Because this legal prohibition seems to be relatively easy to circumvent, there may be a need, later on, to improve "recovery" of project benefits through other means.

Financial authorities have a number of instruments that can be used to capture increased values. These include special assessment rates for designated areas, higher tax rates for areas receiving benefits, capital gains taxes, user charges, and other fiscal techniques. To date, housing authorities have not used any of these instruments in basic housing projects. On the contrary, most efforts have been concentrated on how to provide special benefits and privileges to project participants rather than collecting anything from them. In the future, however, project managers will have to confront the issue of recovering benefits. In view of the rapid increase in land values in the projects and surrounding areas, this time might not be too far off.

Conclusions

Basic housing projects have had positive effects and impacts on the lives of the people in the projects, on the quality of their shelter and services, and on land values in surrounding areas. Compared with the living conditions in the slum/squatter areas where the people used to live, those currently prevailing in project sites are infinitely better.

There is, however, a far more important impact of basic housing projects on housing policy and human settlement strategies in the countries included in this project. The relative success of the basic housing projects has encouraged housing authorities to pay less attention to formal housing construction programs and devote resources to incremental improvement schemes such as community upgrading and sites and services. The demonstration that community upgrading and sites and services can work

has also resulted in tapping more national and international resources for similar types of housing programs.

Some housing analysts have raised the question of whether or not the positive impacts noted in the evaluation will continue in the future. There is some fear that most of the positive impacts have been due to the relative novelty and innovativeness of the approaches, that as basic housing programs become more prosaic they will also become less effective. It has also been suggested that the success of most basic housing schemes to date has been due to a self-selection process that has included in such projects the better-off and more innovative residents of slum/squatter areas, and that after this "creaming-off" effect wears off the positive impacts will be diminished.

There is reason to voice such concerns and enough disturbing evidence to make them very real. However, the evaluation of project impacts should really be relative to what can be achieved using other housing options. So far, both formal housing programs and policies of do-nothing do not show any real advantage compared with the basic housing schemes. Also, continued experimentation with basic housing approaches are leading to new insights and techniques that improve their effectiveness and efficiency. Until more productive outputs can be achieved by other means, it may be best to continue with basic housing approaches.

TOWARD A BASIC HOUSING POLICY

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Hut in Santa Tecla, San Salvador — basic housing is often what the urban poor build themselves.

The beleaguered housing official in charge of a community-upgrading or sites-and-services project might not be aware of it but a project site is an arena for an old controversy about what the right approach to basic housing for the urban poor should be. It has been 30 years since Abrams began the international consultations that eventually led to the pioneering *Man's struggle for shelter in an urbanizing world*, and more than 20 years since Turner went through 8 years of reeducation in the *barriadas* of Lima to emerge as a critic of conventional architectural and engineering approaches to housing. Since those early years, research and experimentation on low-cost housing approaches for the urban poor have thrived. The 90 or so projects funded by the World Bank and other international agencies today are only the latest developments in this debate. As the evaluations of such projects in a few countries reveal, it is unlikely that they will be the last such efforts in years to come.

Some of the forms the debate has taken, such as the question of whether housing is a "noun" or a "verb," have been seen by some as being too academic (Turner 1972a). However, such debates have served to clarify the underlying concepts and value systems that have been responsible for specific housing policies and programs in the past. For example, it is now widely accepted by most that the "process" by which shelter and services are provided is more important than the physical house shell. However, it has taken a lot of arguing that housing is a process and not a product to drive this point home. To date, it is still necessary in most housing discussions to point out that the traditional emphasis on minimum housing standards, completed dwellings, industrialized systems building, and how many houses were added to housing starts in a year are all rooted in a "product" rather than "process" orientation.

Another aspect of the debate is the question of "freedom to build," on the one hand, and "dealing with larger numbers," on the other. The nature of this issue has not changed since it was raised by Weissmann during a visit to a mutual-aid project in Peru in the late 1960s (see Turner 1972b). Essentially, the question was how to use autonomous approaches such as mutual aid and self-help in such a way that they could adequately respond to the massive housing needs of the urban poor? How can individual initiative be managed so that it can be the main element in a large organized program?

This integration of autonomy and freedom, on the one hand, and organized efficiency, on the other, lies at the philosophical foundation of the issue. To that extent, it is rooted in the age-old question of individual rights and the function of the state, or in the Weberian issue of what happens to individual efforts in bureaucracies. Is there a way of harnessing the energy, camaraderie, and goodwill among primary groups in slum/squatter areas and transforming these intangibles into an efficient housing program? In the words of the Salvadorean Foundation for Development and Minimal Housing, it is possible to combine the "horizontal cooperative human

relationships" found among mutual-aid participants with the "vertical hierarchical authority relationships" that make a large organization like the foundation function?

Housing Policy as Politics

Most developing countries have some form of housing policy that defines the role of government and the private sector in providing shelter and services. Some policies may be little more than statements of how many houses are needed per year, what agencies should build them, and how much the effort will cost; others are comprehensive documents covering short- and long-term perspectives, sophisticated analyses of housing needs and demands, estimates of housing investments, and institutional responsibilities.

A commonly ignored side of housing policies is that they are, first and foremost, political statements. In countries where rural power elites predominate, the housing needs of the urban poor might be ignored. In countries with strong traditions of private enterprise, the government's role in housing might be relegated to influencing socioeconomic conditions to allow contractors, developers, and building materials sellers to carry out their businesses. This recognition of housing policy as just another aspect of politics is often forgotten by planners and technicians. This often makes it difficult for them to understand the merits of pragmatism and compromise.

Another consequence of the political nature of housing policies is the fact that what is stated in them might not actually be programed or implemented. In some countries, the policies might be read as just so many good intentions. More cynically, they may be seen as "election promises" or window dressing for some ambitious social programs that cannot be supported with adequate resources.

Where housing policies reflect a genuine desire to improve the living conditions of the poor, they are an invaluable instrument in planning and programing effective projects. In this case, housing policies would most likely encompass such areas as defining the housing need, identifying target groups, land policy, institutional framework, role of the private sector, and role of the popular sector.

Housing Need

One of the factors that makes it difficult for many developing countries to make a housing policy work is the way in which housing needs are defined. The main element in estimating housing needs, as currently practiced, is the "dwelling unit." Despite years of arguing, on the part of housing theorists, that this focus on the "dwelling unit" leads to mistaken concepts of housing needs, there are still many countries that continue to use it in drawing up their housing policies.

The main pitfall in looking at housing needs in terms of dwelling units is that it predisposes planners to think in terms of finished houses that can be counted (the "product" orientation). The fact, however, is that what constitutes a dwelling is culturally or historically defined. The United Nations, in drawing up instructions for the 1973 "World Housing Survey"

recognized this by indicating that a dwelling unit could be "a house, a mobile unit, a natural shelter like a cave or a makeshift unit like a tent." To avoid definitional problems, the United Nations proposed the symbol "delta" to indicate "dwelling unit." Despite this definitional nicety, however, current systems for estimating housing needs are still wanting because they rely on a "product," and a finished product at that.

Once a country commits itself to a definition of a dwelling unit, estimation of the housing needs becomes an exercise in the "numbers game." So many houses are needed. The productive capacity of the country is only so many houses. So much money is needed to reduce the housing backlog. The country only has so much money. The result, invariably, is frustration.

Statistical estimations of the housing need can be quite sophisticated. The following, for example, are the most commonly used variables: (1) Housing needs existing at the beginning of the planning period: (a) number of households without shelter (homeless), (b) households occupying living quarters of an "unacceptable" type, (c) households involuntarily doubling up with other households, (d) households needing separate shelter to reduce density levels in existing structures to an acceptable standard, and (e) living quarters of an acceptable type but in need of repair or replacement. (2) Actual housing needs during the plan period: (a) dwellings needed by new households, and (b) dwellings needed to replace living quarters lost during the period due to destruction, obsolescence, or eradication.

A common formula for estimating housing needs is simply to add up the numbers denoted by the variables mentioned above. Despite serious attempts to formulate definitions, however, the resulting numbers are really of little help in understanding a country's housing problem. There are a number of reasons for this.

First, a number of variables depend on defining an "acceptable" standard, but this is extremely difficult to set. The question may be asked, for example, are slum houses and squatter shanties substandard? As evaluations of country experiences have shown, there are quite substantial dwellings in slum/squatter areas, as there are dilapidated houses in "good neighbourhoods." Density standards are also peculiarly culture bound. The minimum housing standard of one person per room might be an indicator of healthy housing in some countries but it may only mean loneliness and isolation to a child in cultures where children grow up sharing one mat and one mosquito net from birth.

Second, definitions of a housing unit connote a finished dwelling. This negates the notion of progressive development, which is a basic assumption in low-cost housing strategies. What a household needs might not be a completed structure. It might be the beginning of a structure that the family can then improve upon. It could be an existing shanty that can be upgraded if services are extended to the community.

In a review of housing conditions all over the world, the World Bank concluded that "general estimates of housing 'deficits' or 'needs' were found to be so misleading that they could not be used" (Churchill 1979).

> Analysis is... complicated by the absence of even reasonably accurate data... the limitations of the data on 'substandard,' 'slum,' and 'squatter' housing are well known. Such data are collected according to widely differing definitions and are not comparable from city to city.... Typically, estimates of substandard housing include a great deal of housing of relatively high quality; such housing, however, may

> lack legal tenure, services, or both. Many existing estimates have been prepared for other purposes and they may be misleading for economic analysis.

What the quotation indicates is not so much the inaccuracy of the data but a lack of insight into the real housing need. If what is lacking in so-called "substandard" housing is often "legal tenure, services, or both," then what may be the real need in housing can be sometimes defined by tenure and services, not by physical structures called dwelling units. If what people are already living in are taken as acceptable dwellings that can be "improved" by the introduction of better services, then a housing strategy might involve provision of services and not so many housing shells.

Here, the comments of a housing official in a developing country may be worth repeating.

> I am told that our housing deficit amounts to some 10,000 units per year and that we will have to build about 4,000 houses just to keep up with the housing backlog. However, each day, as the sun sets in my country, every person has a home to go home to. So, where is the housing shortage?

Instead of seeing the remark as a callous disregard for human welfare, it can be interpreted as an appreciation of the so-called housing need. It indicates that housing perceptions are relative. It denies absolutist standards that say dwellings must be of standard sizes or that services must be of certain types to be acceptable. Although national social accounts or comprehensive planning might require figures on housing needs, qualitative measures of such figures must be set up first before quantities are introduced. In other words, before figures on housing needs are added up, statisticians and planners must first determine what it is they are counting.

Target Groups

An alternative to formulating housing plans based upon statistics of housing needs is to formulate such plans in light of what target groups they are supposed to serve. As previously indicated, housing might be the responsibility of the government, private sector, or people themselves (i.e., the popular sector). A basic housing policy should not be confused with a national housing policy that encompasses the total housing needs of the country. It is confined to the housing needs of the lowest income groups in urban areas and leaves out middle- and high-income groups, as well as households living in rural areas.

Household income, despite problems in estimating it, is a good guide to setting target groups for a basic housing policy. It is especially useful in sites-and-services projects where eligibility criteria can be formulated and enforced. In community upgrading, a more desirable method of defining target groups is to identify slum and squatter areas in cities. Once these areas are identified, the bona fide residents of those areas become the target groups regardless of their income levels.

Experience in a number of countries has shown that slum/squatter areas are not all of a kind. They differ according to such characteristics as areal extent, number of people, density, age of the settlement, homogeneity or heterogeneity, level of services, levels of organized activity, physical deterioration, contiguousness or spread, and extent of social disorga-

nization. Sometimes, it is possible to analyze these factors by determining how they interrelate with each other, thereby allowing them to be grouped according to type. For example, in most cases, central city slums and squatter areas are older, smaller in areal extent, have higher densities, are more homogeneous, tend to have higher levels of services, are more physically disorganized, and have greater degrees of social disorganization. Conversely, peripheral city squatter/slum areas are more recent, larger, have lower densities because they are more spread out, are more heterogeneous, and possess a higher level of social organization. Characteristics of slum/squatter areas are important in determining the type of basic housing programs that may be introduced. Of special concern are levels of basic services, the improvement of which may be more important than the shelter components in upgrading projects.

A commonly accepted notion is that a basic housing policy should be designed for that segment of the population that is neither too poor to afford some form of housing package nor too rich to require the concessional conditions offered. Many project designers see this as aiming at target groups of households between the 20th and 60th percentiles of income groups in an urban area. Families below the 20th percentile require some type of subsidized housing. Those above the 60th percentile should be able to compete in the open housing market, served by private contractors and developers and by private credit institutions.

Studies have shown that there is great heterogeneity among families within the income brackets mentioned above. Ideally, some type of housing intervention should be designed to cater to the needs of each subgroup. For families with relatively lower incomes, for example, the mere introduction of such services as water and surface drainage where they are living might be an excellent approach. The introduction of basic services vastly improves living conditions for these households. It does not disrupt the fragile relationship between residence and work place because the people are served where they live. Because the introduction of services amounts to tacit recognition of their "squatter's rights" to the land, it might give them a stronger claim for security of tenure. All of these factors might encourage these families to improve their dwellings and surroundings further.

Community-upgrading programs have shown that the costs of services to low-income families can be drastically reduced when these services are formally introduced in slum/squatter communities. It is official prohibition, based on the notion that such communities are illegal and not entitled to urban services, that often artificially raises the cost of services. Before a water system was introduced in Tondo, for example, people had to buy water from itinerant water vendors at ten times the normal rate that the average Manila resident had to pay. Illegal electrical connections, in addition to cheating the utility company and the risks imposed by improper connections, were actually four times as expensive to low-income families. The simple regularization of such services brings down the real costs to households, makes administration easier, and improves collection of rate charges.

Sites-and-services projects may suit families with relatively higher incomes but even here the range of income groups that may be served can be widened by variations in house design, minimum standards, repayment schedules, and levels of services. Offering only a serviced site makes possi-

Residents of Tondo, Philippines, have had to purchase drinking water from itinerant peddlers.

ble a cheaper option, compared with adding a core unit or a semifinished house on the site. Allowing families to use salvaged materials from their old dwellings can reduce initial costs. The use of temporary makeshift shelters while the family is working on the permanent house would reduce commuting costs. In some projects, it has been found that the additional cost of building a house core that a family can move into immediately can be easily justified by considering the fact that this option enables the family to avoid paying rent on the old house and amortization on the new one, spending money on commuting, investing in a temporary shelter that will have to be destroyed later, and paying someone to take care of building materials stocked on the new site. The financial load on the family is further reduced in that the lump sum for the core house can be amortized over a longer period of time but the costs mentioned above have to be paid immediately, at a time when other costs arising from the move have to be met as well.

Some critics of sites and services have charged that insistence on serving families within a specific income bracket creates homogeneously poor communities that may lack the dynamism that a more "normal" community possesses. Such communities also become easily identified as "projects for the poor," with connotations of trouble, lawlessness, and immorality attached to the label. Observers of slum life have noted that people in low-income communities "live off each other," that there are networks of economic interrelationships that allow those who are relatively well-off to employ others and the masses of the poor can become the consumers of the services offered by the well-to-do. Insisting on a narrow range of income groups can spoil this economic and social interdependence.

Again, a number of project variations have been tried to prevent the situation described above. In a project in Indonesia, some parcels of land

in a project were sold to higher income families at market prices, whereas most plots were sold to target groups at concessional rates. This achieved not only cross-subsidization but also assured that a greater variety of people would be living in the project area. In the Dandora project in Kenya, a much wider range of options was offered to project participants. Plots ranged from 100–160 m^2 in size and residents could build from two to more than six rooms in such plots. Business and commercial plots, sold at market rates, are included in the Zambian and Philippine projects. Industrial sites are leased or sold in almost all projects. Although many of these types of options were offered to create greater economic activity, they have also had the effect of widening the range of households served.

Community-upgrading projects, because they have to take low-income communities as they are, are less likely to suffer from serving only a limited range of families. They also have the advantage of building upon what is already there. This means that even limited interventions can have significant effects. A housing agency with limited resources can avoid the "lumpiness" of sites-and-services investments that require a certain size and level of activity to really become worthwhile.

Regardless of the basic housing approach employed, it is important when choosing project target groups that attention be given to low-income communities in towns and smaller cities and that the tendency to concentrate on very large and capital cities be avoided. There are many advantages to this approach. First, such projects will probably be smaller and easier to manage. Second, they will probably be less expensive because land and other project components cost less in such places. Third, there is a possibility that assisting families in these cities may encourage them to stay there, thus reducing population pressures on metropolitan areas. Finally, there is a greater likelihood that local government units in such areas will be more willing to participate in low-income projects, thus assuring project continuation and maintenance.

Land Policy

Aside from the cost of providing shelter and services, the other issue in a basic housing policy is land. As experience in many countries reveals, land per se is not the problem. It enters basic housing policy in terms of the location of available land, cost of acquisition and development, how easy or difficult it is to acquire, and what type of tenure should be established in basic housing projects.

Land continues to be a problem in basic housing despite the argument that land, in itself, is without value and should not be an item of commerce. Land speculation is one of the most lucrative ventures in developing countries. Even in countries where government land policies specifically try to control speculation (as in Zambia), people still find ways and means of using land as an item of trade.

It was the high cost of land that was responsible for the failures of early sites-and-services projects. Because land in central city areas was so expensive, planners took the line of least resistance and located the projects on urban peripheries. As project after project showed, this did not really respond to the needs of low-income people and many of these projects failed. More recently, the policy of setting up sites-and-services

projects in overspill areas adjacent to communities being upgraded is also encountering land problems. In El Salvador and the Philippines, land for overspill projects has to be purchased at "fair market value," which often prices the resulting projects beyond the affordability levels set. There is recourse to legal expropriation using constitutional provisions on eminent domain and inherent rights of the state to control land, but such procedures take time, are expensive, and can become complex and very nasty.

To assure that land is available for basic housing projects, there have been a number of approaches that have been used in many developing countries. Many of these have proven quite effective. They include: (1) urban land reform; (2) cadastral surveys and mapping; (3) fiscal and tax measures; (4) land development programs; (5) land use controls; and (6) land banking. Many of these approaches are closely related to each other, which suggests that a comprehensive land policy, rather than the institution of individual measures, might be the best approach.

A number of countries, such as Chile, Sri Lanka, and the Philippines, have instituted urban land reform programs whereby large estates owned by individuals or families have been broken up and redistributed to residents and tenants. The usual practice has been for the government to "purchase" estates for cash or land bonds. After acquiring the land, government planners could then embark on community-improvement and sites-and-services projects to assist the new owners. Urban land reform has been most difficult to legislate and carry out because it goes against the interests of power elites. It has also been used more as an instrument for achieving social equity than to effect urban improvements. Still, to the extent that urban land reform makes more land available at more reasonable rates, it is a definite asset to a basic housing policy.

Land ownership in many developing countries is a complex mixture of communal land tenure, leaseholding, freeholding, traditional rights, and squatter's rights. Often, a simple intervention such as a cadastral survey and mapping exercise can improve the land situation tremendously. Such an exercise, for example, will identify all types of tenure status. It will clarify which lands belong to the government, individuals and families, and institutions. To that extent, it is a big boon to tax authorities who can update their tax rolls. It facilitates credit and other transactions for which land is used as collateral or a surety. It even helps to reduce the amount of litigation over land boundaries that is such a common preoccupation among neighbours in many developing countries. Most important of all, because the surveys and maps indicate where various types of lands are, it assists planners of basic housing projects in locating various schemes. Once locations are decided upon, land acquisition becomes easier because the status of the land is known.

Most national and local governments in developing countries possess taxation and other fiscal powers for controlling land use but these are often not fully exercised for various reasons. To pursue an effective basic housing policy, such powers might have to be exercised, and new measures formulated as well. A common measure that can be used, for example, is a tax on idle lands. This might help control land speculation if a tax is imposed for developing or selling land. High rates of capital gains taxes might also help discourage speculation in the Philippines, where a law was passed in 1972 requiring landowners to formally declare the true market value of their land. The declared value became the basis for land taxation. To help

curb undervaluation in the declarations, however, the declared value was also set as the expropriation price if the government acquired the land. In balancing between taxation rates and expropriation prices a fairer valuation of the land was achieved. The measure has also significantly increased the proceeds from land taxes since it was enforced.

To make more land available for basic housing, the government, through appropriate agencies, might even take the role of developer. In Korea, the government is empowered to declare a piece of urban land a development area and introduce roads, drainage, sewerage and other improvements into it. After the development program, only that portion of the land equivalent to the declared value before the development was launched is returned to the landowner. The rest is made available for housing and other developmental purposes. In Hong Kong, the government is also empowered to swap rural lands that it owns for urban lands, or vice versa. In these land exchanges, the predevelopment value of the private land is used, enabling the government to acquire more land for development purposes.

The inherent right of the state to control the use of land and prevent its abuse is usually embodied in zoning and building codes. Where such codes exist, they may be used more actively to pursue basic housing programs more vigorously. They may also be updated to be more relevant to existing conditions. When revising old codes or formulating new ones, it might be useful to change their orientation from one of control to encouragement of positive developments in certain directions. Traditional code provisions on such aspects as minimum standards, single-purpose or multiple land uses, and segregation of production and residential areas, might require attention. The administrative machinery for code enforcement must also be improved and more personnel trained to make the codes more effective.

In countries where private ownership of land is the rule, more land can be made available for basic housing through the use of land banking. This entails the purchase of land when it is still cheap, preservation of public land for future uses, exchange of some public lands for tracts that may be of more value later, or development of private lands so that development costs may be recouped for public use. Some countries, like Zambia, are fortunate in that large tracts of land belonging to the government are still available. Others, like Thailand, also have valuable lands belonging to the crown. In most countries, however, uncontrolled urban development is fast depleting land resources, and governments have to intervene to make sure that enough land is available when it is needed. In a number of instances, land banking might create artificial shortages in the land market as public ownership withdraws land from private use. In general, however, if the government is serious about intervening in public housing, land banking is a necessary move. It not only assures that land is available but also makes the land available in sites where it will do the most good for the common welfare.

Housing Institutions

The housing agencies in charge of projects evaluated in IDRC – World Bank studies encompass the complete range of institutional arrangements required for basic housing. They include a nonprofit private foundation,

Fundacion Salvadorena de Desarollo y Vivienda Minima (FSDVM); local government (Lusaka City Council); national line agency (National Housing Authority); and special housing authority, Office des Habitations à Loyer Modéré (OHLM). As evaluations of the programs indicated, there are advantages and disadvantages to specific institutional arrangements and not all of these can be traced to cultural or historical factors.

One common approach to basic housing was to set up a special authority to look after it. Thus, the Tondo Foreshore and Dagat-Dagatan Development Authority (TFDA) was organized to look after the planning and administration of the Tondo project. As set up, the TFDA had a specified areal jurisdiction, confined to the project site. It also had specified functions — to be the main body given the ultimate responsibility for the project, with powers to coordinate other agencies working on the site.

Although creating a particular agency to take charge of basic housing has the positive effect of clarifying lines of authority, it also has certain drawbacks. It may antagonize old, established agencies that jealously guard their prerogatives. It creates functional and geographical fragmentation and makes interagency coordination that much more difficult. When pushed to extremes, special authorities waste valuable resources because many organizational functions of a support and auxiliary nature have to be set up for each agency, resulting from the inability to take advantage of economies of scale. Fragmentation may also result in uncontrolled competition for the few trained civil servants in a country, thereby creating higher personnel costs.

The fact must be recognized that basic housing is a complex activity that requires the contributions of many agencies of various types and different governmental levels. No one agency, no matter how richly endowed, can provide all the inputs to basic housing. Nor is this desirable even when possible.

Still, the known advantages of a special authority continue to make it an attractive approach. The very newness of the agency is a definite asset, creativity and innovativeness are not hampered by traditions, and future actions are not constrained by past mistakes or political scandals. The new agency might be able to attract dynamic and innovative leaders and personnel. It might be able to obtain stronger political support from top executive and legislative quarters. It might also succeed in getting more resources because of the novelty of the program and the enthusiasm of its proponents.

As a basic housing program gains momentum, the dominant functions may shift from project planning and start-up operations to regular routine management and maintenance. It is at this stage that the merits of regular line agencies are appreciated. In many countries, special agencies eventually become line agencies under more senior ministries and offices. Thus, in the Philippines, the TFDA became one of the units of the National Housing Authority. In Jamaica, the Sites and Services Division was absorbed as a regular unit in the Ministry of Construction and Housing.

Because basic housing programs require inputs from many agencies, there have been countries where they have been placed in large ministries such as ministries of construction, local governments, finance, housing, or even human settlements. One advantage of such an arrangement is the possibility of top political support for basic housing programs. In cases

where the country's chief executive takes an interest in basic housing, greater resources can also be mobilized by the responsible ministry.

A possible danger of the ministerial arrangement, of course, is the possibility that basic housing might get lost in broad ministerial programs. There is also the added danger that older agencies with traditional orientations might serve to drag down the housing function through inertia and inactivity. Past mistakes and political problems might taint new programs and make it that much more difficult to make them work.

Since the 1972 Stockholm conference on the environment and the 1976 Vancouver conference on human settlements, a number of countries have launched human settlements management programs that have also emphasized basic housing. In Mexico and the Philippines, for example, ministries of human settlements have been created. However, the human settlements approach has been extremely difficult to translate into concrete programs. The functions that are encompassed by human settlements development are vast and wide ranging (e.g., the Philippine program endeavour to respond to the people's 11 basic needs) and a full-blown program to serve all basic needs would require the creation of a "super ministry." In addition to resource problems, such a large body would most likely tax the human and other technical skills in a developing country to the point that it would leave precious little for other institutions to look after.

If placing basic housing under a super ministry creates problems, going to the other extreme of making it the responsibility of a private nonprofit foundation, such as FSDVM, also runs the risks of isolating it from the political process. To people who perceive housing primarily as a technical problem, the creation of a private body might have its allure. As pointed out earlier, basic housing cannot help but be political because it is concerned with the utilization of public resources to achieve equity and justice and not just to deliver houses and services to people. As a major social issue, it cannot be divorced from the political process without becoming a side issue of interest only to a few technicians and some civic-spirited citizens. There is too much at stake in basic housing to allow that to happen.

One final institutional concern about basic housing is continued project operation and maintenance. Special authorities, line agencies, super ministries, or private foundations might initiate and launch basic housing projects but, eventually, local government bodies with the cooperation of the project residents themselves have to assume regular management and maintenance responsibilities. The problem, however, is that local units often do not have the technical and managerial expertise, tax base, organizational capabilities, or other resources to assume responsibility over the projects. Such resources cannot simply be provided by transfers from senior to local governmental levels. It takes personnel training, institution building, expansion of the tax base, and development of local resources to enhance the capabilities of local units. In addition to the resource requirements of such efforts, time is also needed.

Private Sector

Although private developers and contractors play a dominant role in economic housing, their role in basic housing has not been adequately explored. To date, their most important role has been in constructing basic infrastructures up to and including construction of sanitary cores, party

walls, and core houses. To carry out these functions, private contractors have used the methods they are most familiar with — maximum use of technology, conventional construction techniques, heavy reliance on equipment, and use of modern and permanent materials.

Discussions with developers and contractors have revealed some of the uneasiness and problems with basic housing. Such problems may be traced to certain peculiarities of basic housing approaches. Most architects and engineers are used to designing finished housing units. The open-ended nature of projects, based on assumptions of progressive development, bother some of them. Like most creative people, professionals want to be able to visualize an aesthetically pleasing finished product. They find it difficult to point to a community of self-built houses in various stages of incompleteness and say "I designed that project."

Business-minded or efficiency-oriented contractors also find difficulties with mutual-aid and self-help approaches. When they are forced to hire people from the project area (as in Jamaica), they feel they are losing control over the management of the project. They complain about the lack of skills and insubordination of workers. They are unhappy with conflicts and squabbles and costly delays. They are particularly resentful of political leaders who impose difficult conditions and then expect that contractors will perform satisfactorily and deliver finished projects on time.

To hear private contractors talk, they would prefer not to touch basic housing projects because of the way the government goes about its business. A frequent complaint is that decision-making is politically diffused, i.e., it is extremely difficult to make sure who is really in charge. There is too much political interference. Funding, as a result, is often uncertain. A lot of time is wasted following up papers to make sure one is paid. In some cases, bribery might be needed to get things approved and funds released.

Corruption, of course, is constantly mentioned by private contractors. Government agencies institute a number of checks, audits, and postaudits, but these seem to be directly related to the amount of corruption. In many cases, the more checks and investigations there are, the more people there are to bribe. The additional "costs" for such management practices are passed on to project participants by developers. Thus, it is the people who end up paying for these practices.

From project experiences, the people in the private sector who seem to have benefited the most from basic housing projects have been small contractors, tradesmen, and artisans who have found employment. These people have not only done an excellent job of meeting construction needs in projects but have also performed an admirable training function in the mutual-aid and self-help process. Their methods and techniques have been appropriate to the materials and designs demanded by the projects. Their profit margins have also been modest enough to make their services affordable to the people.

Popular Sector

It was the spontaneous activities of squatters and slum dwellers that first started the trends toward basic housing programs. From careful observations of mutual-aid and self-help approaches, the possibilities of making available affordable housing to the urban poor were raised. It is

only natural, therefore, that the popular sector should continue to play an important role in basic housing programs. Thanks to the community development efforts of project authorities, the people's energies and resources are being harnessed to provide sites, shelter, and services.

There are some project designers who believe that the best managers are those who manage least, that what is really needed in basic housing projects is to take away all the artificial rules and impediments to popular action. In so doing, people will solve housing problems themselves in the cheapest and most efficient way. They would use local organizations, traditional mutual-aid practices, appropriate technologies, and their own brawn and brains to provide shelter and services that meet their needs.

Evaluation of basic housing projects has shown that community upgrading and sites and services would be extremely difficult to carry out if they were left to the people themselves. There are a number of highly technical and complex operations required in such projects. The scale of planning, programing, project management, and administration calls for skills that the people do not seem to have. Mutual aid and self-help are most useful at the individual home or family level but the problem of dealing with large numbers of homes and families is a matter of a different scale altogether.

By seeking to strike a balance between the primary group orientation of mutual aid and self-help and the more formal organizational approaches of project administration, current community-upgrading and sites-and-services projects are seeking to reap the benefits of both approaches. From the former, they are taking responsiveness, flexibility, creativity, and innovativeness and from the latter they are borrowing efficiency, predictability, rationality, and effectiveness. Despite these noble aspirations, it is possible, of course, that basic housing approaches might reap instead the disadvantages of each of the approaches being used. Some of the negative reactions to basic housing projects already bear this out.

Faced with a rapidly urbanizing world in which squatters and slum dwellers seem to be the fastest growing segments among urban populations, all that housing authorities can hope for is for basic housing projects to succeed somehow in distilling the benefits from both popular and formal organizational approaches. The price of failure is too high. Already, there are people living in cities today who might not have any hope of ever benefiting from urban services considered to be basic to human life in other countries. The number of such people will inevitably increase if lessons from basic housing approaches are not learned and people do not learn from their mistakes.

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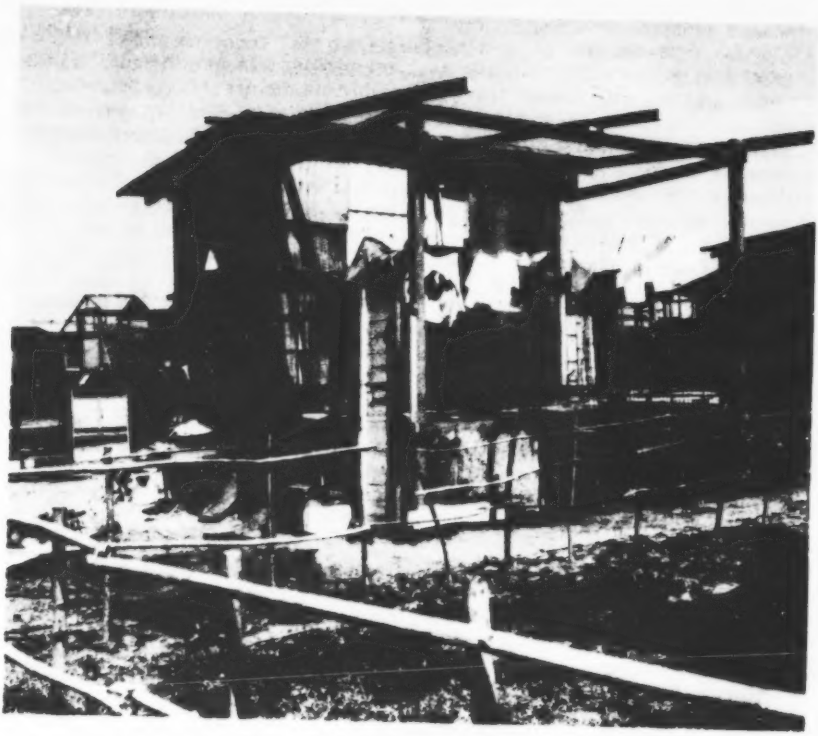

An early solution to overcrowding in squatter areas was relocation to outlying areas. Here, a house is being built in Dasmariñas Cavite, Philippines.

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